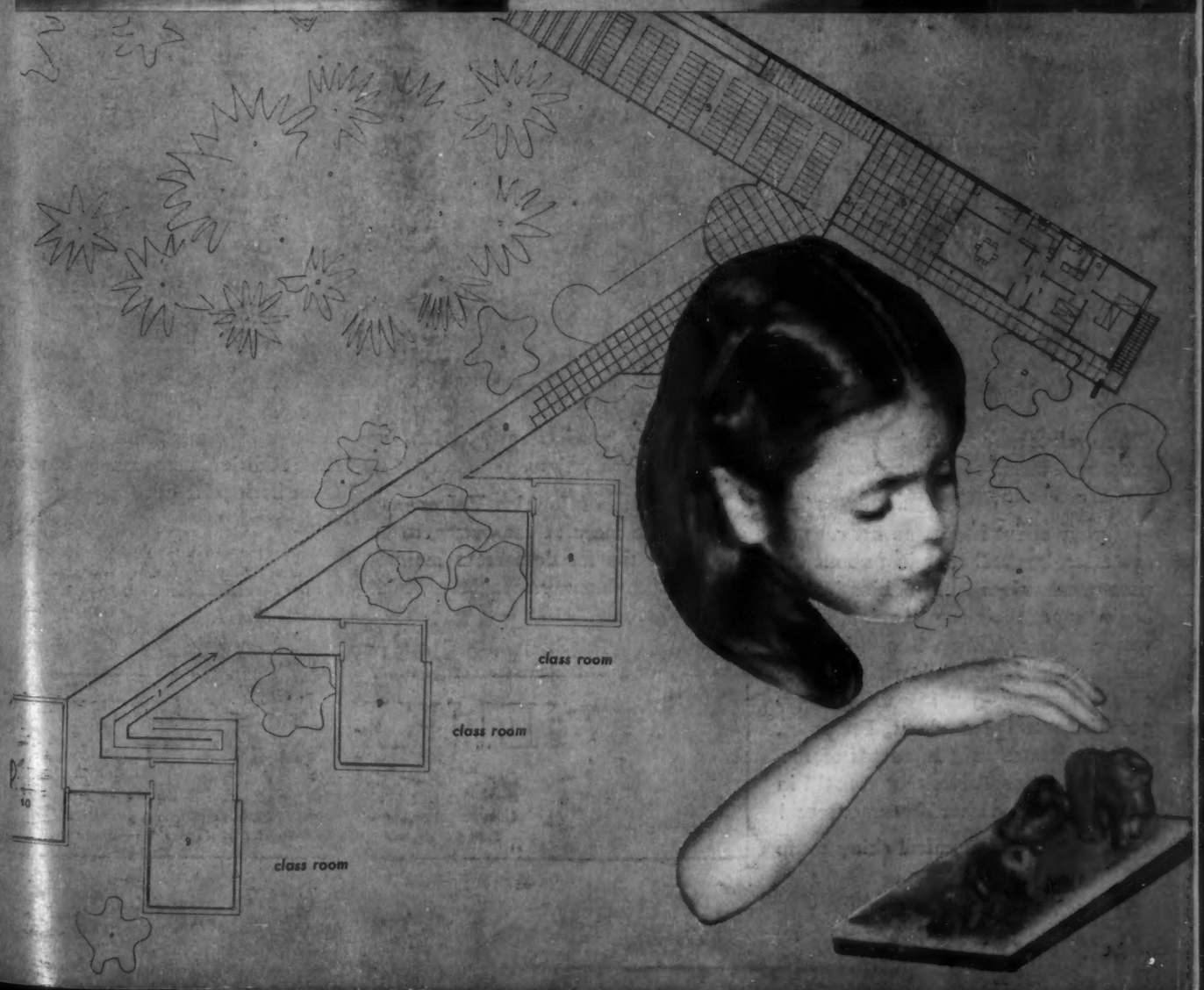
APR 12 1945

PENCIL POINTS
PROGRESSIVE ARCHITECTURE

4

April 1945



Only the rich can afford cheap valves!

Cheap valves are a luxury in which only property-owners with an excess of cash can afford to indulge.

If your client has no excess cash to squander, beware! For just about the time good valves like Jenkins Valves begin to get their second wind, cheap valves begin to fold up. Once this starts, there's no telling what it will cost your client in money – you in good-will – to get things straightened out. For proof, Jenkins files contain hundreds of records of Jenkins Valves that are still in tip-top condition after 50 years or more!

Clearly, the economical thing to do is to specify *good* valves . . . *Jenkins Valves* . . . every time.

Some types of Jenkins Valves may cost a little more at the outset, to be sure. But the freedom from maintenance and replacement problems which their extra stamina insures, justifies any little additional cost many times over – from both your client's point of view and yours!

Jenkins Bros., 80 White Street, New York 13; Bridgeport; Atlanta; Boston; Philadelphia; Chicago; Jenkins Bros., Ltd., Montreal; London.

LOOK FOR THIS TRADE JENKINS MARK Jenkins Bros. DIAMOND MARK

JENKINS VALVES

For Domestic, Commercial, Engineering and Industrial Service . . . In Bronze, Iron, Cast Steel and Corrosion-resisting Alloys . . . 125 to 600 lbs. pressure.

Sold Through Reliable Industrial Distributors Everywhere

Vice President; Francis Turner, Vice President; Gilbert E. Cochran, Vice President; William P. Wilson, Vice President; Executive and editorial offices: 330 West 42nd St., New York 18, N. Y. Subscriptions payable in advance: 1 year, $3.00; 2 years, $5.00 in U. S. and Possessions; Canada, Cuba, Mexico, Central and South America: Include both old and new address. Articles, drawings, photographs, etc. submitted will be carefully considered; but the publisher will not be responsible for loss or damage. Copyright 1945, Reinhold Publishing Corp. Trade Mark Registered. All rights reserved. Entered as second class matter

Pencil Points

PROGRESSIVE ARCHITECTURE

April, 1945

Views: Letters; Jobs and Men; Notices . beginning on page **8**

News: Men and Activities in the field of architecture; Competitions . . . . . beginning on page **18**

Bystanders Are Not Innocent: Editorial by Kenneth Reid . **51**

Three Lanham Act Schools Near Detroit: Eberle M. Smith, Associates, Architects-Engineers **52**

High Point School, Seattle: Stuart, Kirk & Durham, Architects **59**

Codes Should Be Instruments for School Planning: by John E. Nichols, A.I.A. **65**

Carmel High School, Carmel-by-the-Sea, California: Franklin & Kump and Associates, Architects **73**

Selected Details **63, 86**

Perspectives: *He Sees Farther Through a Sieve than Most: Ernest Joseph Kump* **87**

Sunnylea School, Etobicoke, Ontario: John Burnet Parkin, A.R.I.B.A., Architect **89**

Addition to Rugen School, Glenview, Illinois: Perkins, Wheeler, and Will, Architects **92**

Bellows Free Academy, Fairfax, Vermont: Freeman, French & Freeman, Architects **97**

Building Product Facts: Prepared by Don Graf, A.I.A. . . **105**

Products Progress **107**

Manufacturers' Literature **108**

Reviews: Books, periodicals, bibliographies, beginning on page **110**

Cover: Composition by Stamo Papadaki.

Editor-in-Chief:
Kenneth Reid

Editors:
Frank G. Lopez, Jr.
Charles Magruder
George A. Sanderson

Assistant Editors:
Edith Lamar
Eileen Feus

Research Consultant:
Don Graf

Cover, Layout, Typography:
Stamo Papadaki

Publishing Director:
Philip H. Hubbard

Business Manager:
John G. Belcher

Circulation Manager:
John Zellner

Include both old and new address. Articles, drawings, photographs, etc. submitted will be carefully considered, but the publisher will not be responsible for loss or damage. Copyright 1945, Reinhold Publishing Corp. Trade Mark Registered. All rights reserved. Entered as second class matter March 25, 1944, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Volume XXVI No. 4, April 1945. Indexed in Art Index.

Vice President; Francis Turner, Vice President; Gilbert E. Cochran, Vice President; William F. Wilson, Vice President. Executive and editorial offices: 330 West 42nd St., New York 18, N. Y. Subscriptions payable in advance: 1 year, $3.00; 2 years, $5.00 in U. S. and Possessions, Canada, Cuba, Mexico, Central and South America; 1 year, $5.00 in all other countries. Single copies, $1.00. Remittances must be by International or American Ex-

selling...staged with

light

FOR THE POSTWAR FLOWER SHOP

GENERAL ELECTRIC brings you another lighting perspective, presenting striking ideas by Ketchum, Gina' & Sharp, New York.

They say: "Put flowers behind the footlights, in settings designed to provide the right backgrounds for such star merchandise. Sales backgrounds, like stage backgrounds, should never steal the show. Therefore, light is used as a dramatic medium—atmospheric lighting bathes the sales background in soft light; accent lighting dramatizes the displays with high level illumination."

This new booklet "Selling Staged with Light", gives further detail on these lighting ideas for tomorrow's flower shop. For your copy, write General Electric, Div. 166 PP-4, Nela Park, Cleveland 12, Ohio.

G-E MAZDA LAMPS

GENERAL ELECTRIC

THE CONSTANT AIM OF G-E LAMP RESEARCH IS TO MAKE G-E LAMPS *Stay Brighter Longer*

Complete Your Catalog File
Nelson Heating and Ventilating Products

Herman Nelson Branch Offices

Boston—J. E. Carey, Mgr., J. F. Flannery, Product Application Engineer.
Chicago—C. A. Pickett, Mgr., J. C. Donaldson, Herman Stai, Product Application Engineers.
Detroit—M. E. Van Vliet, Mgr., E. C. Seyphol, Product Application Engineer.
Milwaukee—Carl Amundson, Product Application Engineer.
Minneapolis—Homer Melvin Bird, Product Application Engineer.
Moline—Anthony Spoodis, Product Application Engineer.
New York—Robert F. Ruggles, Mgr., E. V. Loughran, Product Application Engineer.
Philadelphia—P. A. Cavanagh, Mgr.
St. Louis—Henry C. Sharp, Mgr., E. Paul Harder, Product Application Engineer.
Syracuse—Lawrence C. Ward, Product Application Engineer.
Washington—J. M. Osborne, G. M. Heslop, Product Application Engineers

Herman Nelson Product Application Engineers

Albuquerque, N. M.—Boyd Engineering Co., Ltd.
Atlanta, Ga.—Felix J. Commagere
Birmingham, Ala.—Hugh C. Boisclair
Buffalo, N. Y.—Edward H. Cox
Cape Elizabeth, Me.—The Partridge Co.
Charlotte, N. C.—Charles M. Setzer & Co.
Cincinnati, O.—Kenneth B. Little Co.
Cleveland, O.—H. W. Kaiser Company
Columbus, O.—Russell H. Smith Equipment Co.
Dallas, Tex.—W. E. Lewis & Co.
Denver, Colo.—Fox & Company
Des Moines, Iowa—Products, Inc.
Duluth, Minn.—Williams-Swanson Co.
El Paso, Tex.—Boyd Engineering Co., Ltd.
Grand Rapids, Mich.—O. D. Marshall
Houston, Tex.—D. R. Rippey
Indianapolis, Ind.—George Heidenreich
Jackson, Miss.—H. M. Ludlow
Kansas City, Mo.—H. H. Wright Company
Louisville, Ky.—John Zimmermann
Los Angeles, Calif.—F. J. Hearty & Co.
Memphis, Tenn.—Southern Sales Co.
Miami, Fla.—R. P. Kelley
Milwaukee, Wis.—C. W. Miller
Minneapolis, Minn.—P. R. Reese
Nashville, Tenn.—Southern Sales Co.
New Orleans, La.—L. Villere Cressy Co.
Omaha, Neb.—Verne Simmonds
Pittsburgh, Pa.—Allegheny Engineering Co.
Richmond, Va.—W. Wallace Neale
Saginaw, Mich.—W. A. Witheridge Co.
Salt Lake City, Utah—Rushby C. Midgley
San Antonio, Tex.—Harry J. Dalton
San Francisco, Calif.—E. C. Cooley Co.
Spokane, Wash.—R. L. Nelson

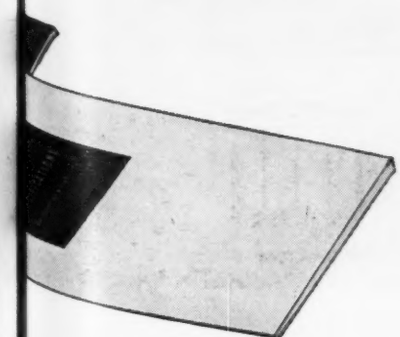
Herman Nelson Distributors

Babbitt Steam Specialty Co.
New Bedford, Mass.
Bailey-Farrell Co.
Pittsburgh, Pa.
E. Best Plbg. & Htg. Supply Co.
Quincy, Ill.
W. L. Blake & Co.
Portland, Me.
The Blodgett Supply Co.
Burlington, Vt.
J. C. Bowles Co.
Seattle, Wash.
Braid Electric Co.
Nashville, Tenn.
Brock-McVey Co., Inc.
Lexington, Ky.
Bruce-Rogers Co.
Fort Smith, Ark.
Garrett Burgess, Inc.
Detroit, Mich.
Calcasieu Lumber Co.
Austin, Tex.
Canney-Plue, Inc.
Rutland, Vt.
Carman-Thompson Co.
Lewiston, Me.
W. A. Case & Son Mfg. Co.
Erie, Pa., and Jamestown, N. Y.
Cedar Rapids Pump & Supply Co.
Cedar Rapids, Ia.
Central Metal & Supply Co.
Baltimore, Md.
Consolidated Supply Co., Inc.
Portland, Ore.
Cooper Supply Company
Tulsa, Okla.
Harry Cooper Supply Co.
Springfield, Mo.
Cordes Supply Co.
Milwaukee, Wis.
Dallman Supply Co.
Sacramento, Calif.
Desco Corporation
Wilmington, Del. and Chester, Pa.
R. B. Dunning & Co.
Bangor, Me.
Electric Supply Co.
Atlanta, Ga.
Ewinger Supply Co.
Burlington, Ia.
Fox Electric Supply Co.
Elgin, Ill.
Globe Machinery and Supply Co.
Des Moines and Cedar Rapids, Ia.
Griffith Electric Supply Co.
Trenton, N. J.
Hajoca Corporation
Ashville and Charlotte, N. C., Richmond, Norfolk, Roanoke, Danville, and Staunton, Va.
Hall & Knight Hardware Co.
Lewiston, Me.
Hansen Supply Co.
New London, Conn.
The Hardware & Supply Co.
Massillon, O.
Heating Trades Supplies, Inc.
Toledo, O.
Holyoke Supply Co., Inc.
Holyoke, Mass.
The Hughes Supply Co.
Mansfield, O.
Inland Supply Co.
Champaign and Danville, Ill.
Inland-Peoria Supply Co.
Peoria, Ill.
International Engr. & Supply Co.
Providence, R. I.
E. Keeler Company
Williamsport, Pa.
Kester Machinery Co.
Winston-Salem, High Point and Burlington, N. C.
The W. H. Kiefaber Co.
Dayton and Hamilton, O.
Latrobe Plumbing Supply Co.
Latrobe, Pa.
Lehigh Valley Supply Co.
Allentown, Lansdale, East Stroudsburg and Easton, Pa.
LeValley, McLeod, Kinkaid Co., Inc.
Elmira, Olean, Schenectady, N.
Luzerne & Lackawanna Supply Co.
Wilkes-Barre, Pa.
Manufacturers Selling Co.
Trenton, N. J.
Marsden & Wasserman, Inc.
Hartford, Conn.
Chas. Millar & Son Co.
Utica and Binghamton, N. Y., Springfield, Mass., & St. Johnsburg, Vt.
Morrison Supply Co.
Fort Worth, Amarillo, Lubbock, Wichita Falls and Sweetwater, Tex.
Mott Bros. Company
Rockford, Ill.
Murphy Supply Co.
Green Bay, Wis.
The Ohio State Supply Co.
Youngstown, O.
Palmer Plumbing Supply Co.
Laconia and Rochester, N. H.
Palmer Supply Co.
Portland, Me.
The Penn State Supply Co.
Sharon, Pa.
Reading Foundry & Supply Co.
Reading, Pottsville, and Lebanon, Pa.
W. J. Riley Supply Co.
Monroe, La.
Robbins-Gamwell Corporation
Pittsfield, Mass.
The Roekel Company
Zanesville, O.
The Salina Supply Co.
Salina, Kan.
San Antonio Machine & Supply Co.
Corpus Christi and Waco, Tex.
Southern Equipment Co.
San Antonio, Tex.
Strong, Carlisle & Hammond Co.
Cleveland, O.
Tay-Holbrook, Inc.
San Francisco, Fresno, San Jose and Stockton, Calif.
The Tholen Bros. Supply Co.
Leavenworth, Kan.
The Topeka Steam Boiler Wks. Co., Inc.
Topeka, Kan.
Trimble & Lutz Supply Co.
Wheeling, W. Va.
Geo. E. Trudel Co.
Manchester, N. H.
U. S. Supply Co.
Kansas City, Mo., Wichita, Kan., Oklahoma City, Okla., and Omaha, Neb.
The Universal Supply Co.
Parkersburg, W. Va.
J. A. Walsh & Co., Inc.
Houston, Texas
Washburn-Garfield Co.
Worcester, Mass.
Western Maryland Supply Co.
Hagerstown, Md.
Wigman Company
Sioux City, Ia.
Yelton-Weaver Supply Co.
Springfield, Ill.

THE HERMAN NELSON CORPORATION

Manufacturers of Quality Heating and Ventilating Products

GENERAL OFFICES: MOLINE, ILLINOIS • FACTORIES AT MOLINE, EAST MOLINE AND CHICAGO, ILLINOIS



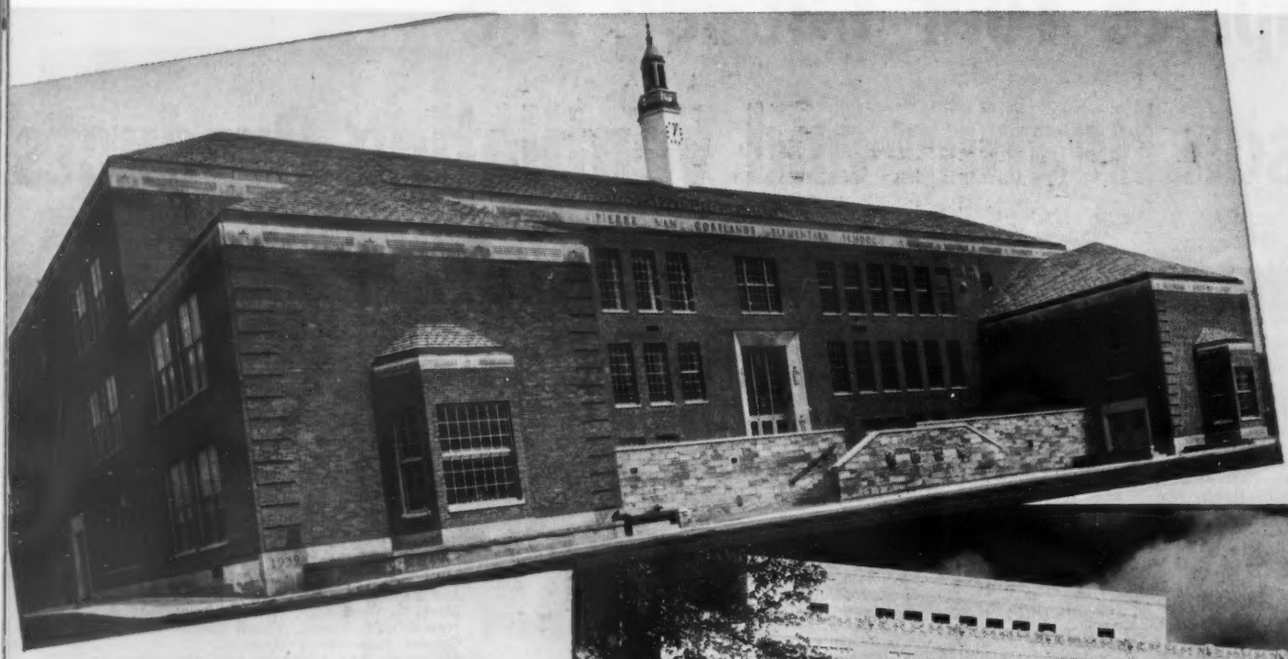
THE HERMAN NELSON CORPORATION, Moline, Illinois

Yes—We would like to have our files of literature on Herman Nelson Heating and Ventilating Products brought up-to-date.

Firm Name

Address

City State



Top—PIERRE VAN CORTLANDT ELEMENTARY SCHOOL
Croton-on-Hudson, N. Y.—Adolph H. Knappe, *Architect*

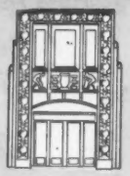
Right—CITY HALL, Kalamazoo, Mich.
Weary & Alford, *Architects*

Opposite Page—CINCINNATI TERMINAL
Fellheimer & Wagner, *Architects*

Below—TRIBORO HOSPITAL FOR TUBERCULOSIS
Jamaica, N. Y.—Eggers & Higgins, *Architects*

STAIRS

DECORATIVE GRILLES



ENTRANCE DOORWAY

SPANDRELS

DIRECTORY

Any building is more beautiful and more practical—*designed with*

ARCHITECTURAL METALS

Take a look at some of the outstanding buildings designed during the last ten years. In practically every case you find architectural metals used to good advantage—both from a decorative as well as from a practical point of view.

Because of their great versatility and extreme adaptability Architectural Metals can enhance the beauty of whatever type building you design — school, hospital, public or commercial building.

Give your buildings that extra touch of distinction by making full use of architectural metals in the entrance, stairway, balustrade, grilles, etc. You can also add extra strength and safety through the use of architectural metals in service equipment, building devices, etc.

As you design for the post-war building boom ahead, use architectural metals to keep your new buildings modern for years to come. Write today for new Directory of Leading Architectural Metal Working Fabricators who are anxious to serve you. Address Dept. P-4.

NATIONAL ASSOCIATION OF

ORNAMENTAL METAL MANUFACTURERS

209 CEDAR AVENUE, WASHINGTON 12, D. C.

NON-FERROUS WINDOWS

FLAGPOLE BASE

STORE FRONTS AND MARQUEES

FIXTURES

HAND RAILINGS

Views

Opinions from readers

Remarks from the editors

Changes of address

Inside and Out

Dear Editor:
I have been watching with interest from month to month the different layouts of your PENCIL POINTS—particularly the cover design—I think with the January 1945 issue you have the most satisfactory design! Keep up the good work inside and out!

RAPHAEL S. SORIANO
Los Angeles, Cal.

Vast Fund of Talent

Dear Editor:
Your August, 1944, editorial, "Full Employment Needs Architecture," I hailed with jubilation. Finally, a little sympathy shown by analysis of a chronically evil condition that would drastically hamper a natural plan for postwar prosperity. I had hoped that your thought would be propagated by architecture's group powers, so that some intelligent solution would be formulated. Time goes on and stagnation rots the fibers of hope for those who wait. Fortunately, the young have faith and are still working for their newborn ideals—faith in the continuity of progress.

I believe I speak for many young men who maintain their hope for an architectural career, but who are now deferred from it and the battlefields for the design benefit they have been able to give to war industries. Many of these men have never had the opportunity to practice architecture, having just finished their education when the war began; the war industries grabbed at their talents—with government approval.

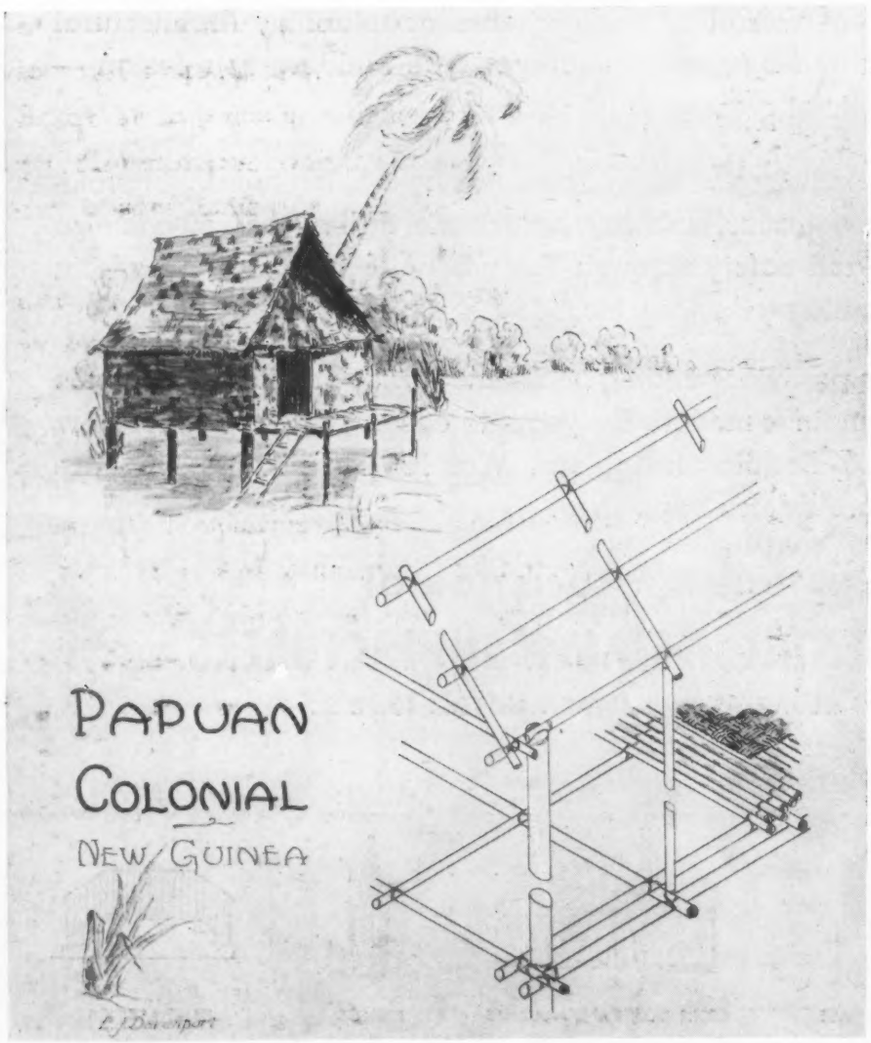
It was gratifying to be in such demand and to discover our versatilities of design abilities in all the complexities of war production. Because of proven worth, this group should be recognized as a vast fund of designing talent to be used on whatever job has the highest priority.

It is now true, or will be in the near future, that the design urgency preceding the war production has in the main been satisfied, and that the planning for the next phase of this era should be begun. We believe that the architectural profession should assume a paramount position in the reconstruction period.

This group of young men has been successful in designing for war's destruction, so is it not right that they should be permitted the opportunity of working toward some higher aspiration of mankind—designing for *construction*. Design must precede any efficient production scheme. We helped prepare the means by which the soldiers departed and we now wish to prepare a homecoming design, immediately, as postwar planning would be an added delay.

If you ask what is restricting us from such high ambitions, the answer would simply be, the policies of the War Manpower Commission. Of necessity and to our benefit, we look to our elders to formulate and change national policies by what pressures of public opinion seem applicable. To our peers, the practicing architects, we ask: Is this principle and its result worth any part of your effort? We would indeed appreciate some aid.

PAUL BOGEN
Seattle, Washington



Ingenious and Satisfactory

Dear Editor:

An enjoyable evening always results when my PENCIL POINTS arrives in this jungle realm. You will be interested to know that your publication has been introduced to many men heretofore unconscious of planning, materials, and design as related to comfortable living, yet who will be the home builders of a peaceful tomorrow. My copies are well worn.

During the year I spent in New Guinea I have carried out some interesting if amateurish studies of the natives and their culture. The type of house they build on one of the islands inhabited by a tribe of Papuans caught my interest in its pure functionalism and in its remarkable similarity to our popular frame construction. Hardwood is common in this particular section and is used for all structural members. Posts, which elevate the structure, are driven into the ground to form the columns and to support pole girders. These in turn carry lighter beams. Still lighter members form plates, studs, rafters, and ridgepole. All joints are securely lashed with thin strips of bamboo, which harden and tighten upon drying. The finished floor, composed of lengths of bamboo and laid at right angles to the floor members are lashed thereto. The building thus raised above the ground enables the occupants to escape the ever present dampness, rodents, and numerous crawling pests. The circulation of air resulting from this elevated position retards rot, and since the bam-

(Continued on page 10)

IT'S THE "Know-how" THAT COUNTS

● When you call in the Raymond organization, you are turning your foundation contract over to men who are expertly trained and thoroughly experienced in every scope of the work. They know their jobs—from the preliminary investigation of underground conditions to the complete installation of the foundation.

They also know their equipment—how to handle the largest rig and the smallest tool needed in the efficient placing of Raymond Piles. And, too—they know their responsibility for carrying out large and small jobs to successful completion.

Since 1897 Raymond Concrete Piles have been continuously and increasingly used by the architectural and engineering professions. Today over 50 million lineal feet of these sturdy cast-in-place piles are in world-wide use. With over 11,000 contracts to its credit, Raymond has accumulated a vast fund of knowledge, experience and ability. Write, wire, cable or phone for a competent Raymond engineer to discuss your next project with you.

SCOPE OF RAYMOND'S ACTIVITIES

includes every recognized type of pile foundation—concrete, composite, precast, steel, pipe and wood. Also caissons, construction involving shore protection, ship building facilities, harbor and river improvements, borings for soil investigation.

RAYMOND CONCRETE PILE CO.

140 CEDAR STREET • NEW YORK 6, N. Y. BRANCH OFFICES IN PRINCIPAL CITIES

Views

(Continued from page 8)

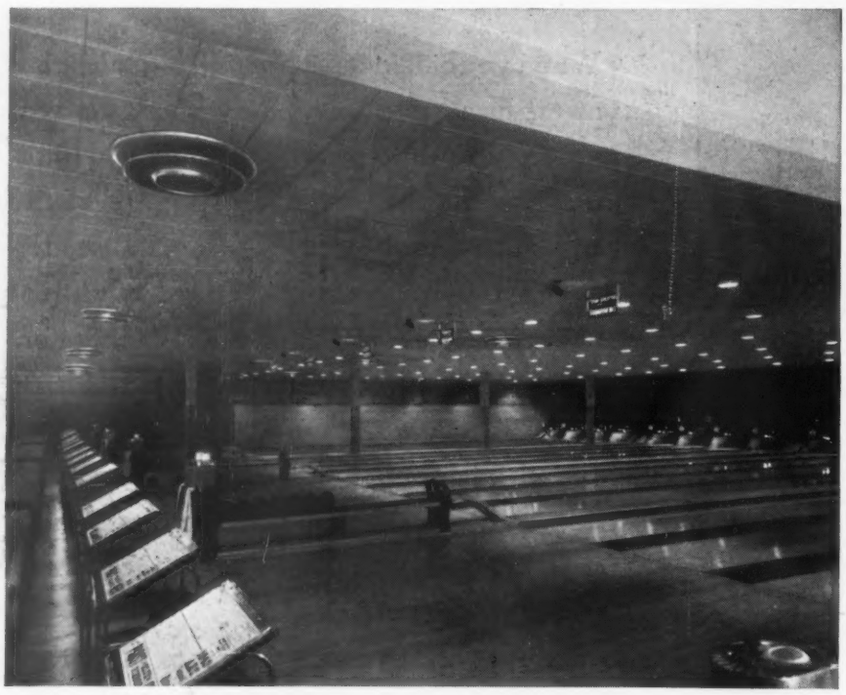
boo flooring has somewhat open joints, air flows into the structure to escape through a triangular opening at the eaves. A flue action is thereby created. This opening is the result of a modified hip-roof section at each end of the building which intrudes under the eaves and terminates before reaching the ridgepole. The angle of this, along with the protection afforded by the side roof surfaces, keeps out rain. The steep angle of the roof is ideal where torrential downpours are a steady diet, and where the heat is excessive.

The pandanus palm thatch used as roofing and the nipa palm siding shed water efficiently, while the air spaces of the thatch itself furnish thermal insulation. The bamboo flooring, being tubular in section, has a remarkable load-bearing capacity. In some cases a woven mat of dried pandanus leaves may cover a portion of the floor. Bamboo, pandanus, and nipa are even more resistant to rot and destructive insects than the hardwood frame. In layout, many such structures have a dock-like open porch extending across the front at floor level. A partition divides the interior of the hut into a front and rear section. The forward one may be called the "living-room-kitchen," the rear, a bedroom. Front and bedroom door openings are staggered, forming a baffle which lends privacy and at the same time serves to eliminate light for the comfort of the sleeper. I found in one of the houses sleeping racks of horizontal poles are installed in the walls, and in one case, a miniature rack for the infant was mounted over an open portion of the floor. A most ingenious and satisfactory arrangement.

The natural finish of the local materials plus the pleasant proportions fit into back-drop of dense varying greens to create a natural esthetic effect. The effect of climate, environment, material supply, and "way of life" is exemplified in their architecture. This simplicity and sincerity impressed me, when I consider the progressive attempts to avoid over-decoration in our own building.

I might add that your BPF sheets constitute a valuable reference file and a contribution much needed. Unfortunately, those like myself, who under our present circumstances must "live from a duffle bag," find saving these sheets all but impossible. I hope there will be an opportunity for us to obtain a collection in its entirety upon our return.

PVT. ERNEST J. DAVENPORT
Somewhere in the Pacific



BARBER-COLMAN

MODERN BOWLING ALLEYS

The tremendous popularity of bowling as a winter recreation and competitive sport has led to the building of many fine alleys, a good example of which is shown above. In this instance, particular thought was given to proper heating and ventilation, resulting in the use of VENTURI-FLO Ceiling Outlets. One row of outlets is located directly over the benches and another is a few feet down the alleys, to provide thorough and uniform air distribution in the area of greatest activity.

venturi-flo
CEILING OUTLETS FOR GUARANTEED AIR DISTRIBUTION

Data based on complete tests enable us to recommend exactly the right outlet for any condition and GUARANTEE results. You are assured of uniform, properly diffused air of the desired temperature at specified level, with required air movement and elimination of hot, cold, or drafty areas. Use ENGINEERED AIR DISTRIBUTION — see your Barber-Colman representative.

BARBER-COLMAN COMPANY
1230 ROCK STREET • ROCKFORD, ILLINOIS

A Question Raised

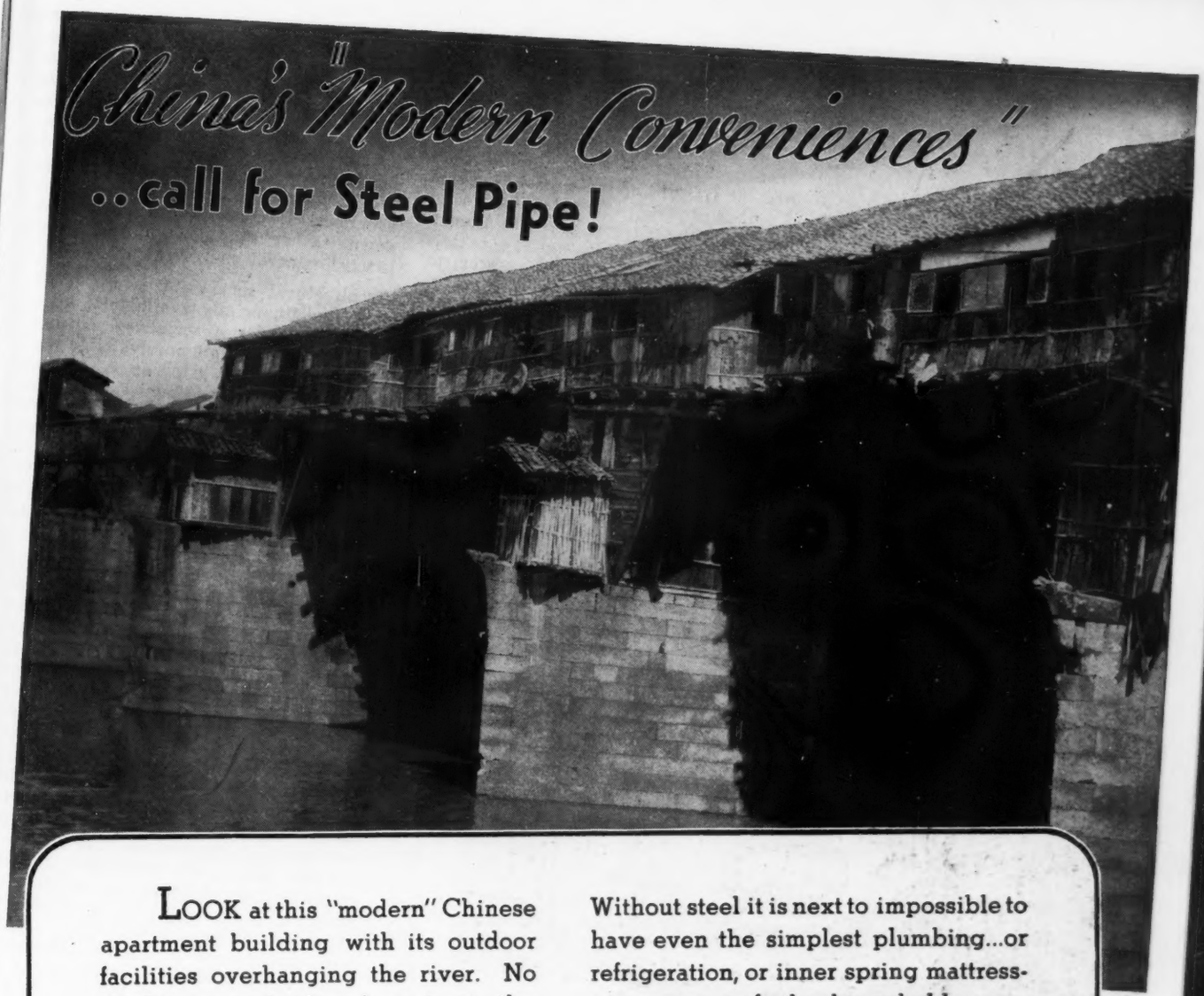
Dear Editor:

The article entitled "Architecture for All," page 85 of PENCIL POINTS for January 1945, by Eugene Raskin, has raised some questions in my mind and prompted the following observations.

The term "reconversion," to me, does not seem to be misleading. It does not imply a "turning back to old failures." To me it signifies an unobstructed opportunity to again devote our attentions and abilities to the production of commodities and services for all who desire them. It means an opportunity to make better things with new and better materials, to satisfy a high standard of living. To be sure, the standard of living should be high. However, the measure of such standard is, in large degree, in direct proportion to over-all production. It also includes freedom of choice by the individual as to what work he does, and how he does it, with a minimum of dictated limitations. It should include the inspiration that comes with the satisfactory completion of professional services rendered as an individual to corporate or individual clients of his own selection.

It is reasonable to believe that the more generally the architectural problems of

(Continued on page 12)



LOOK at this "modern" Chinese apartment building with its outdoor facilities overhanging the river. No doubt every bridge houses similar accommodations. And this same river may provide the water supply for all human needs--garbage disposal, laundry, bathing, drinking.

Oriental housing is so different that we call it "quaint" and "picturesque". We could truthfully describe it as "inconvenient", "uncomfortable", "unsanitary"

Why do the people of the East endure this? Do they prefer to drink unclean water, to wash and bathe in primitive ways?

No, of course, not. You know the answer. Their backwardness is due in large part to lack of steel.

Without steel it is next to impossible to have even the simplest plumbing...or refrigeration, or inner spring mattresses, or scores of other household accessories that help make living in America a joy instead of a burden.

America's well-being depends on steel. When war's demand is ended, there will be steel enough for present American homes to be modernized and new ones built...with modern conveniences never even known before.

One way in which we Americans can contribute to lasting peace is to help other peoples of the world to appreciate and enjoy the high standards of living that steel makes possible.

QUALITY YOUNGSTOWN SERVICE

YOUNGSTOWN
THE YOUNGSTOWN SHEET AND TUBE COMPANY
YOUNGSTOWN, OHIO
Manufacturers of
CARBON · ALLOY AND YOLOY STEELS
Pipe and Tubular Products - Sheets - Plates - Conduit-Bars-Coke Tin Plate-Electfolytic Tin Plate-Rods-Wire-Nails-Tie Plates and Spikes.

Views

(Continued from page 10)

the individual and the community are studied and solved by qualified architects the more satisfactory will be the results from an architectural point of view. However, from a socially desirable aspect, it seems more important that the individual be allowed to reserve the right to decide what degree toward perfection he may choose in this situation. He may not want a Commission to protect him from himself, within community protection limitations, such as building codes, in the solution of his architectural problems. Good architecture resulting from the individual's desire for it will serve a greater general good than the same architecture forced upon him by Commission or Agency directive. It would seem far better, though the process is much slower, to point out the benefits of good architecture by education and example, than providing architectural solutions for people, the need for which they neither feel nor understand.

Our profession is not decadent. The results on every hand are conclusive evidence that individual, institutional, and community architectural problems have been, and can be, satisfactorily solved by the practice of our profession as it has been conducted. Socialization of the profession or further regimentation of architects, I believe, would tend to slow down, rather than hasten, the march toward general improvement.

Architectural services are now physically and financially available to all as surely as under a socialized arrangement, and in my opinion, available with less man-power waste, or cost, than through Agency or Commission organization. As a rule adjustments in Agency personnel, to actual needs, are slower than in private procedure. In individual private practice economic necessity forces a speedier adjustment to need and thus reduces the tendency to man-power waste or high cost.

As to the matter of some architects being without work, under our present system, it would be well to point out that primarily the profession is designed to serve the public need and those not required to fulfill this need might serve society better in some other field. Socialization or Agency procedure would tend to increase the burden of these excess members of the group rather than lighten the load. As to the dangers involved in an architect undertaking the solutions of problems above and beyond his capacities, it is my opinion that individual responsibility tends to develop capabilities and devotion to duty. In private practice professional service must be of a high order to assure continuance in practice. The sheltered security of civil service rating in Agency procedure does not require the same necessity for quality service. Certainly, the security of such rating does not tend to make the individual more capable than in private practice where demonstration of capability is one of the principal factors in professional security.

The author's reference to the desirability of domesticating the "lone wolf" seems to imply that those rendering individual professional services may be classed as predatory. There is no assurance that people, or animals, that prey upon others, become virtuous or public spirited by banding together. They sometimes quarrel among themselves.

The author's assumption that "personalities and organizational politics will enter" the proposed Agency organization seems most likely. Individuals who question the motives and good faith of their fellows seldom become reassured and wholly trusting simply by joining in a common enterprise. Confidence is more securely grounded upon proven character revealed by individual action, without restraints, than by subscribing to rules of procedure emanating from Agency organization.

(Continued on page 14)

WEATHER-PROTECTION

BY THE POUND OR GALLON

Here is weather-protection in concentrated form for every type of building. Pecora Calking Compound, when used for sealing joints around window and door frames, and for pointing up masonry, assures these important benefits:

- FUEL SAVING
- FREEDOM FROM NEEDLESS DRAFTS
- NO MOISTURE SEEPAGE IN JOINTS
- NO NEEDLESS DUST INFILTRATION
- BETTER TEMPERATURE CONTROL FOR AIR CONDITIONING
- BETTER OCCUPANCY CONDITIONS

Time-tested for 37 years, Pecora Calking Compound is impervious to heat, cold and moisture, or acid fumes. It remains permanently elastic beneath its tough outer skin, for when properly applied, it will not dry out, crack or chip. Adheres to stone, glass, metal and wood and adjusts itself to variations in expansion and contraction. Available in knife grade and gun grade in standard and special colors. Knife grade packed 25 to 900 lbs. Gun grade in 1 to 55 gal. containers.

See SWEET'S for suggested specifications, or write us for descriptive folders and detailed information.

PECORA PAINT COMPANY, INC.

Sedgley Avenue & Venango Street **Philadelphia 40, Penna.**

Established 1862 by Smith Bowen Member of Producers' Council

ROOF COATING • WATERPROOFING • DAMPPROOFING • SASH PUTTIES

This is one of a series of advertisements telling what leading Consulting Engineers think of modern steam heating.

Edward E. Ashley, Consulting Engineer, New York, N.Y. Member of ASME, ASH&VE, and AIEE.

"*In school heating*, the different occupancy requirements of classrooms, study halls, dormitories, gymnasiums and other sections—and often varying temperatures dictated by use—present problems that call for control (1) at the source and (2) at the several zones," writes Edward E. Ashley. "Moderate, closely-regulated steam heat solves these problems and, at the same time, provides highly efficient operation and greatest comfort... Steam is the accepted medium for school heating—because it is flexible; because it can be more perfectly balanced than other media; and because it can be accurately controlled... When War Economy puts the emphasis on Fuel Conservation, the Heating Industry emphasizes *Control.*"

▲

Following are some of the schools for which Edward E. Ashley has specified Webster Systems of Steam Heating: Lincoln School for Teachers' College, New York, N.Y.; Albany High School, Albany, N.Y.; Eastview Junior High School, White Plains, N.Y.; Battle Hill Junior High School, White Plains, N.Y.; Junior High School, New Rochelle, N.Y.; Glenfield School, Montclair, N.J.; Columbus High School, Columbus, Ga.; Cypress St. School, Greensboro, N.C.

WARREN WEBSTER & COMPANY, Camden, New Jersey
Pioneers of the Vacuum System of Steam Heating
Est. 1888 : : Representatives in Principal U.S. and Canadian Cities
Darling Brothers Limited, Sole Manufacturers and Licensees for Canada

STEAM Heats America . . . .

Views

(Continued from page 12)

It is my opinion, also, that individual, institutional, and corporate clients would greatly prefer to select their professional leadership directly rather than through a Commission or Agency. The basis of such selection is frequently more a matter of proven reliability than familiarity with, or extended experience in the design of, a certain type of structure. Although the selection of an architect is quite generally believed to be based largely upon technical considerations and skill, high character is an increasingly fundamental consideration. Due to practical necessity, many architectural problem solutions must be financially sound, and many involve large monetary outlays. Where such considerations are of the essence of the successful solution of construction projects, assurance of unquestioned reliability of professional leadership is imperative.

The author's prediction that "delays, discouragements, and outright failures will be many," in the regimentation of our profession, seems to me to be sound. However, I do not share his belief that the program will come into being, in its essentials, eventually. Nor do I have a feeling of frustration as a result of this difference of opinion.

A careful comparison of the relative advantages of applying our profession to society, as it has been practiced, to the proposed theoretical, socialistic procedure, seems to me entirely in favor of our present tried, proven, and accepted way, and to the advantage of both society and practitioner alike.

NOEL E. THOMPSON
Secretary, Spokane Chapter, A.I.A.

And the Author Replies

Mr. Thompson's philosophic objections to "socialization" are generally the same as those made by all people who accept group activity in the interests of profit (as in the case of large corporations) but fear group activity for the good of all, such as occurs when a democracy acts through the machinery of government. I shall not attempt to enter into a debate on "free enterprise vs. socialism," but merely refer Mr. Thompson to the many good books on the subject.

However, I cannot accept Mr. Thompson's characterization of unemployed architects as "excess" in the face of the cold fact that 80% of our nation's building is done without architects. To suggest that these "excess" architects go into "some other field" is an abject surrender unworthy of our courageous profession.

Nor can I agree that an architect needs the pressure of economic insecurity to maintain a high level of professional service. There are many fine architects of independent means who would, I think, resent this implication. On the contrary, I think that freedom from worry about office rent and payroll might not be at all bad for a creative artist.

To paraphrase Mr. Thompson's conclusion, I would say that our present system of private practice has been tried, proven inadequate, and can no longer be accepted.

EUGENE RASKIN

THEY SAID—AND WE QUOTE:

It is a good old Swedish tradition to welcome ideas and impressions from other countries and foreign centers of culture. We have fared well under this open-door policy and have found that it has made our national individuality richer and more alive.

Erik Wettergren
Director, National Museum, Stockholm.

If we in the building industry are on the defensive, it is not because of our performance in supplying shelter at a reasonable cost under our private enterprise system. Rather it is because we have not done a constructive job of public education on the accomplishments of our industry. In other words, I believe that the greatest criticism that we should level at ourselves is our lack of sound public relations and salesmanship.

H. M. Shackelford, Vice President,
Johns-Manville Sales Corporation

—UNQUOTE!

Central Heating from an Available Steam Source Eliminates Individual Boilers and Cuts Fuel Costs

Twenty years ago a group of manufacturers in a compact industrial area made arrangements to purchase and pipe steam from an available source nearby. This made it possible to shut down their own boilers—which, because of smoke regulations, had become antiquated. Also, by dispensing with labor, coal, ash handling and other costs, they effected material savings—in fact, one of the largest users paid for his share of the steam distribution lines out of these savings in 6 months operation.

Today the originally installed steam piping, insulated and protected by Ric-wiL Conduit, is still enabling their plants to enjoy lower steam costs and freedom from individual boiler worries.

A recent survey by a postwar plan commission indicates the feasibility of increasing the boiler capacity of the same plant to serve an adjacent industrial and residential area comprising five square miles *at a substantial profit!*

Central Heating is practical for industrial, commercial, institutional and residential groups. Special studies of typical installations are available upon request.

Any Industrial or Residential Area can Enjoy these Advantages

- Savings of 15% or better in fuel costs.
- Elimination of individual boiler worries.
- Cleaner, healthier working conditions.
- Reduction of smoke and soot in neighboring residential areas.
- Extra production space in plants.
- Decreased fire and explosion hazard.
- Private coal delivery and ash removal eliminated.
- Uniform clean heat—whenever required.
- Unfailing source of "process" steam and hot water.

RIC-WIL INSULATED PIPE CONDUIT SYSTEMS
THE RIC-WIL COMPANY · CLEVELAND, OHIO
AGENTS IN PRINCIPAL CITIES

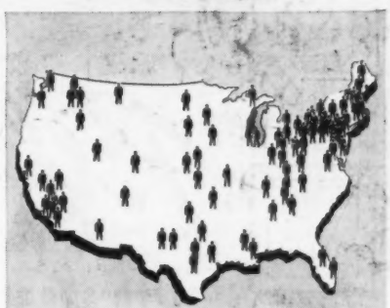
Get This FREE BOOKLET for your reference library

Tells how best to provide for using visual aids in school, church, hospital, and other buildings

VISUAL aids are now important teaching tools in almost every educational program . . . are destined to be as commonly used as textbooks. Your clients will recognize the wisdom of providing for the most effective, convenient use of visual aids in your plans for building or remodeling.

Let this new, free handbook help you. It covers the requirements of both classroom and auditorium . . . gives experienced counsel on seating arrangements; locations for projector, screen, loudspeaker, cables, and wall sockets; electrical specifications; illumination and acoustics; projection booths; service and storage rooms; other important considerations.

To get your copy, pin the coupon to your letterhead. No obligation!



PERSONAL COUNSEL, TOO

FOR THE ASKING

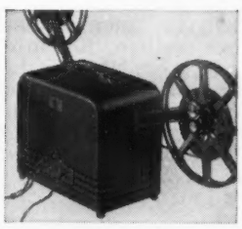
Near you is a member of the B&H staff of Special Representatives. Thoroughly informed on visual education, he is able and willing to help you work out any related problem. Get acquainted with him now . . . he'll urge you to ask for his aid at any time. Send the coupon to learn his name.

Bell & Howell Company, Chicago; New York; Hollywood; Washington, D. C.; London. *Established 1907.*

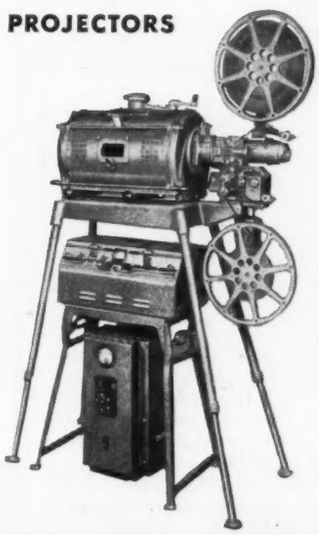
★ ★ ★

Buy and Hold More War Bonds

BELL & HOWELL PROJECTORS



FILMOSOUND 16mm. sound-on-film projectors are overwhelmingly preferred by educators and other users. Built in a full range of capacities to meet every need for lastingly superior sound and picture reproduction.



FILMOARC 16mm. sound-on-film projector with powerful arc lamp illumination. Provides brilliant pictures and ample sound volume in large auditoriums.

OPTI-ONICS—products combining the sciences of OPTIcs • electrONics • mechanICS

PRECISION-MADE BY Opti-onics BELL & HOWELL

Bell & Howell

BELL & HOWELL COMPANY
7161 McCormick Road, Chicago 45
Please send, without obligation ( ) copy of *Architects' Visual Equipment Handbook;* ( ) name of nearby B&H Special Representative; ( ) Details about Filmosounds and Filmoarc.

Name.....

Address.....

City.....State.....

PP 4-45

JOBS AND MEN

Employment Service

MEN WANTED

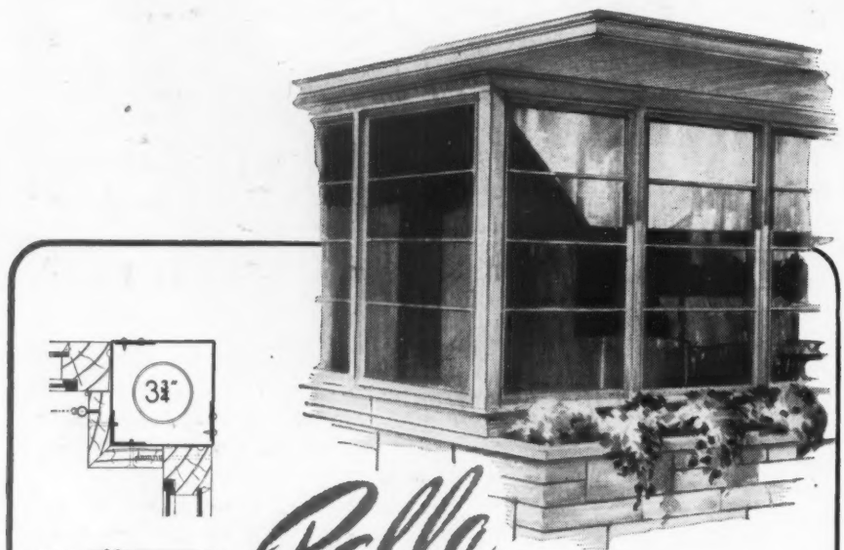
ARCHITECTURAL DRAFTSMAN capable of handling design. Write to Whitehouse & Price, 715 Hutton Building, Spokane, 8, Washington.

SMALL HOMES ARCHITECT—Old established Midwest firm wants services of architect interested in house design and project development. Permanent postwar opportunity for man with creative ability. Salary commensurate with experience. Replies confidential. Write Gordon-Van Tine Company, Adv. Dept., Davenport, Iowa.

FROM A SMALL OFFICE IN MICHIGAN: We need several competent architectural draftsmen. This office has a general practice. The work at hand is largely postwar. Indications are that these positions will be steady. Inquire Box 134. PENCIL POINTS.

PRODUCT DESIGN ENGINEER, graduate architect or industrial design engineer, under 35, to design, develop glass products. Manufacturing experience, ability work with other depts. needed. New position, real opportunity for man with creative ability. If not in essential war work, send Personnel Dept. full data, draft status, recent photo. Salary commensurate with abilities. Replies confidential. CORNING GLASS WORKS, Corning, New York.

MIAMI BEACH ARCHITECT with numerous postwar commissions has opening for architectural draftsman and designer with future partnership to man qualified. Write experience, education and salary desired. Box 135, PENCIL POINTS.



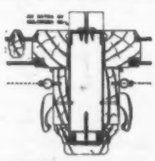
Pella CASEMENTS

with steel corner mullions in 3 popular sizes

for greater light area and neater appearance

LARGER GLASS AREAS are easier to achieve through the use of these *smaller* steel corner mullions . . . created by Pella designers. Prefabricated of heavy gauge, galvannealed, rust-proofed steel. Pella corner mullions are available in three *space-saving* sizes—ranging in size from 5⅞" x 5⅞" down to 3¾" x 3¾", creating a neat, narrow-line corner.

Pella prefabricated corner mullions save material and hours of construction time. Steel construction prevents rotting and warping. Permanent plumbness assures smooth window operation. Investigate Pella's extensive line of stock size casement units that permits more than 480 possible combinations of single windows, corner windows, bays, picture and kitchen windows. All factory fitted and assembled, ready to set right in the wall.



◀ PELLA'S ALL-STEEL JOINING MULLION is *only* 1⅛" wide! It is a real space saver, *stronger* than the best wood mullion.

FREE *for Architects and Builders . . . A file pocket containing 22 loose sheets of scaled details that enable you to create individual and unusual window arrangements from Pella's stock size Casement Units. Send for your FREE set today. The Rolscreen Company, Dept. D-45, Pella, Iowa.*

Pella CASEMENT WINDOWS

ALSO PELLA AWNING AND PROJECTED SASH AND PELLA VENETIAN BLINDS

SITUATIONS WANTED

SALES ENGINEER, age 32, experienced architectural and aircraft background, desires to act as sales representative in the New England territory for good, engineered products. Arthur N. Jacobs, 3543 89th St., Jackson Heights, N. Y.

ARCHITECT registered in Illinois, modern designer, versatile idea man, wants stimulating job. Experienced in residential, restaurant, hospital, plant, and display designing. Age 45, single, free to go anywhere, present residence Chicago. Box 130, PENCIL POINTS.

NEGOTIATIONS WITH MANUFACTURERS desired. Thoroughly trained and experienced registered architect and construction engineer, well known to building industry in Maryland and vicinity contemplates establishment of manufacturers agency in Baltimore about six months after end of hostilities. Presently overseas. Best references, bank and personal. Office and limited storage space available. Box 131. PENCIL POINTS.

EXECUTIVE ARCHITECTURAL ENGINEER desires position. Recently Project Manager on large Naval installation. Capable meeting with clients, organizing and coordinating work, and managing office. Over 20 years in large offices and own practice. Interested principally in southwest U. S. or Mexico but will consider other localities. Box 132, PENCIL POINTS.

ARCHITECT-DRAFTSMAN—20 years general experience on design, planning, specifications, and supervision. Can meet with clients and carry work through to completion. Desires position leading to partnership in southwest Texas, Arizona, California or vicinity. References exchanged. Box 133. PENCIL POINTS.

NOTICES

TOIVO J. MERIKAARTO AND EDWARD M. WATZIK announce the opening of an office for the practice of interior and industrial design at 164 E. 35th St., New York 16, N. Y.

WILLIAM J. STONE, A.I.A., Architect, has opened an office at 750 E. Colorado St., Pasadena, Calif.

Why is *one brand* of wire fabric reinforcement so widely used in concrete construction? Because architects, engineers and contractors know that American Welded Wire Fabric is the ideal material for concrete reinforcement.

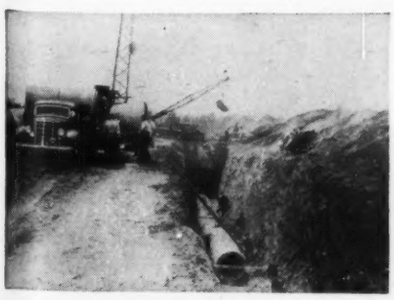
THEY have proved their preference by installing billions of square feet of this high-yield-point, cold-drawn, welded wire fabric in walls, floors, roofs, roads, streets, concrete pipes, ramps, airports—literally *all sorts* of reinforced concrete work.

Easily handled, quickly installed, this steel backbone of concrete enables the slab to withstand impact, stresses and strains in every direction.

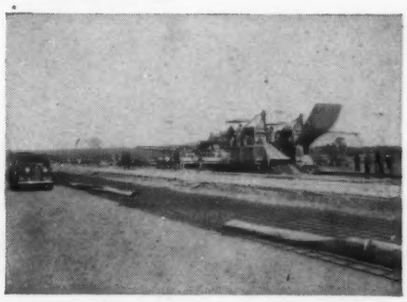
This practical, economical reinforcement lies flat, stays in place. On jobs where American Welded Wire Fabric is used for reinforcement, construction time and costs are reduced, a permanently safe, long-lasting structure is assured.

We shall be glad to consult with you on concrete reinforcement problems and to send you detailed information on the many and varied uses of American Welded Wire Fabric. Drop us a line today, without obligation.

For concrete pipe, welded wire fabric is the most practical reinforcement. It stays in place, is quickly and easily shaped.



For airport runways and other wide lane concrete work welded wire fabric is the most adaptable reinforcing material.



In thousands of miles of modern concrete highways, welded wire fabric reinforcement insures additional years of trouble-free service.

AMERICAN STEEL & WIRE COMPANY

Cleveland, Chicago and New York

Columbia Steel Company, San Francisco, *Pacific Coast Distributors*

United States Steel Export Company, New York

USS STEEL — UNITED STATES STEEL

AMERICAN WELDED WIRE FABRIC

UNITED STATES STEEL

News

Design and construction

Developments afield

Building Regulations

To Norman and Jean Bodman Fletcher, young couple working in the office of Saarinen & Swanson, Birmingham, Mich., goes the $2,500 First Prize in the PENCIL POINTS-PITTSBURGH architectural competition for design of "A House for Cheerful Living" for the returning "G. I. Joe." Their drawing and other prize winners chosen March 14-16 by a distinguished Jury of Award are to be featured next month in PENCIL POINTS.

Winners of the $1,500 Second Prize were I. M. Pei and Frederick G. Roth, both of Palmer Physical Laboratories, Princeton, N. J. The $1,000 Third Prize went to Ralph Rapson, Chicago architect who has been successful in a number of competitions; and the $500 Fourth Prize went to Eduardo Fernando Catalano, Buenos Aires, now at Harvard University.

In addition, the Jury of Award distributed eight Special Prizes of $250 each for details of appropriate uses of glass on the interior of the houses. Those receiving Special Prizes were Pei and Roth, Rapson, and Catalano (see above), W. Brooks Cavin, Silver Spring, Md.; Louis C. Dixon and Lee B. Kline, associated architects, of Los Angeles; Charles D. Wiley, also with Saarinen & Swanson, Birmingham, Mich., and winner of the recent *Arts and Architecture-U. S. Plywood Corporation* small house competition; Seymour R. Joseph, A.I.A., New York, and Charles G. MacDonald, Harvard University.

Among the twenty-five competitors cited for Mentions and $100 awards, seven were chosen for Special Commendation. These were Leon Hyzen and Allmon Fordyce, New York; Karl J. Belser and Karel H. Dekker, Los Angeles; Charles D. Wiley (see also Special Prizes); Stanley A. Kazdailis, Institute of Design, Chicago; Alexis Dukelski, West Los Angeles; Charles G. MacDonald (see also Special Prizes); and Oliver Lundquist, Washington, D. C.

Others receiving Mentions were W. Brooks Cavin (see also Special Prizes); Elmer Babb, Walker & Weeks, Cleveland; A. Albert Cooling, Los Angeles; Donald Barthelme, A.I.A., Houston, Texas; Joseph Allen Stein, Mill Valley, Calif.; Lt. Vincent G. Kling, U.S.N.R., Norfolk, Va.; Pei and Roth (see above); Seymour R. Joseph (see also Special Prizes); Simon Schmiderer, Torquato de Felice, and Michael M. Harris, New York; Bernard L. Campbell, Plainfield, N. J.; Frank Weiss (Mention for each of two drawings), Philadelphia; C. N. Chau, Chicago; Douglas C. Simpson and Edward P. Elliott, Ottawa, Canada; E. W. Waugh, architect, George Matsumoto and Charles T. Granger, collaborators, all of Cranbrook Academy, Bloomfield Hills, Mich.; C. Stuart Perkins, Wayzata, Minn.; Maj. Thomas J. Biggs, C.E., Resident Engineer, Aberdeen Proving Ground; and Pat Marshall, Institute of Design, Chicago.

Recipient of the University Medal of the Societe des Architectes Diplomes par le Gouvernement Francais (American Group) is the Department of Architecture, University of

(Continued on page 20)

Every one of the 914 drawings entered in the PENCIL POINTS-PITTSBURGH competition was taken from its mailing tube or wrappings by Kenneth Reid (above), serving as Professional Adviser. As he inspected the drawings, verified mailing dates, and listed noms de guerre, the drawings were carefully checked by skilled draftsmen (below) to insure that conditions of the competition were met by each entrant. Thus factual considerations were established before the drawings were handed to Jurors Pietro Belluschi, Ralph Flewelling, J. Byers Hays, Robert M. Little, Louis Skidmore, Philip Will, Jr., and Hugh A. Stubbins, Jr., Chairman.

Tile-Tex means Healthy Hospital Floors

Robinson Memorial Hospital, Ravenna, Ohio—Chas. G. Kistler, Architect

Sound, sturdy, time-tested floors are essential to efficient operation of a hospital. The floors in any institution get more actual usage than any other part of the building structure.

When you discuss flooring with your hospital client, remember that the health of both the staff and the patients of that institution are of prime importance. Tile-Tex Asphalt Tile protects that health in two ways. First, its smooth, compact surface prevents wearing in of grime and dirt, with consequent ease of maintenance. Second, the composition of Tile-Tex will not support any form of bacteria or germ life.

In addition, Tile-Tex floors have other advantages for hospitals. Their *resilience* reduces leg fatigue. The surface of Tile-Tex is *slip-safe.* Their *low cost* saves construction money, and their time-tested *durability* means long life and minimum replacement cost. Add to these virtues highly *attractive appearance,* and you know why millions of square feet of Tile-Tex have been specified for use in hospital areas during the past twenty years.

Specify Tile-Tex for the hospital you are now planning—and if we can be of assistance with helpful data, don't hesitate to call on us.

THE TILE-TEX COMPANY

CHICAGO HEIGHTS, ILLINOIS

101 PARK AVENUE • NEW YORK CITY

MORE SPACE FOR YOUR

AIR EXPRESS SHIPMENTS

FOR FASTEST DELIVERY ship early in the day — as soon as package is ready. War traffic comes first, of course. But with more planes being put into Airline service, more space is available for other important goods.

WHEN TIME MEANS MONEY, Air Express charges are cheap. A critical shipment weighing 25 lbs., for instance, may be the means of saving days and thousands of dollars. Yet it travels more than 1,000 miles for only $8.75 — at a speed of three miles a minute, with special pick-up and delivery in all U. S. cities and principal towns.

THOUSANDS OF FIRMS everywhere are using Air Express with efficiency and economy. Service is direct by air between hundreds of airport towns and cities, while rapid air-rail schedules serve 23,000 off-airline points in the United States. Direct service to scores of foreign countries.

WRITE TODAY for "Quizzical Quizz," a booklet packed with facts that will help you solve many a shipping problem. Railway Express Agency, Air Express Division, 230 Park Avenue, New York 17. Or ask for it at any Airline or Express office.

AIR EXPRESS

AIR EXPRESS

GETS THERE FIRST

Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION
Representing the AIRLINES of the United States

News

(Continued from page 18)

Notre Dame. The medal is awarded annually.

The Department is headed by Francis W. Kervick, who joined the faculty in 1908, and is affiliated with the Association of Collegiate Schools of Architecture and with the Beaux Arts Institute of Design. Announcing the award, Leopold Arnaud, President of the *Societe*, congratulated Professor Kervick and the Department for "good work, together with the whole-hearted spirit of the student body that made this success possible."

An individual student medal also was awarded to Clayton M. Page, Minneapolis, Minn., as winner of the second highest number of Beaux Arts judgments during the school year, 1943-1944. He studied at Notre Dame as a member of the marine detachment of the V-12 unit.

Sculptors are invited to compete in designing an eight-foot statue of Our Lady of Victory to adorn the facade of a city church for which Eggers & Higgins are architects.

The National Sculpture Society, sponsoring the competition, offers $300 for each of the three models adjudged best by the jury of award. Unsigned plaster models in the round at the scale of 2½ inches to one foot must be delivered prepaid and unboxed to the National Sculpture Society, 115 East 40th Street, New York, N. Y., not later than May 4, 1945. The models are to remain the property of the sculptors but all responsibility for damage or loss must be assumed by the competitors. The entries will be exhibited in the Architectural League Galleries May 8 to May 18.

The Committee for the Advancement of Ecclesiastical Sculpture arranged with Eggers & Higgins for use of the church facade in this competition. The statue is to stand before a Palladian window above the main entrance.

A collaborative competition for the design of a memorial to Dr. Elmer A. Sperry, under auspices of the Alumni Association of the American Academy in Rome and the Sperry Gyroscope Company, is open until May 14.

Competing teams must comprise not less than two or more than four representatives versed in architecture, landscape architecture, painting, and sculpture. First prize will be $1,000; second prize will be $200; and there will be three prizes of $100 each. Programs may be obtained from the office of the American Academy in Rome, 101 Park Avenue, New York 17, N. Y.

Until May 1 applications for the 14th Kate Neal Kinley Memorial Fellowship, for a year's advanced study of the fine arts in America

(Continued on page 22)

ART REPRINTS OF THIS ILLUSTRATION ARE AVAILABLE ON REQUEST

Pattern for better living

Tomorrow's living will demand more glamour, as well as practical designs in lock trim. The design illustrated here is now an *actuality*. Although our production is now directed toward the winning of the war, our "Astra" design is one of many ready for immediate production when the war is over.

SAN FRANCISCO **SCHLAGE** NEW YORK

933B

PREFABRICATION IN CONCRETE

Casting a building into its own skin of Architectural Concrete Slabs

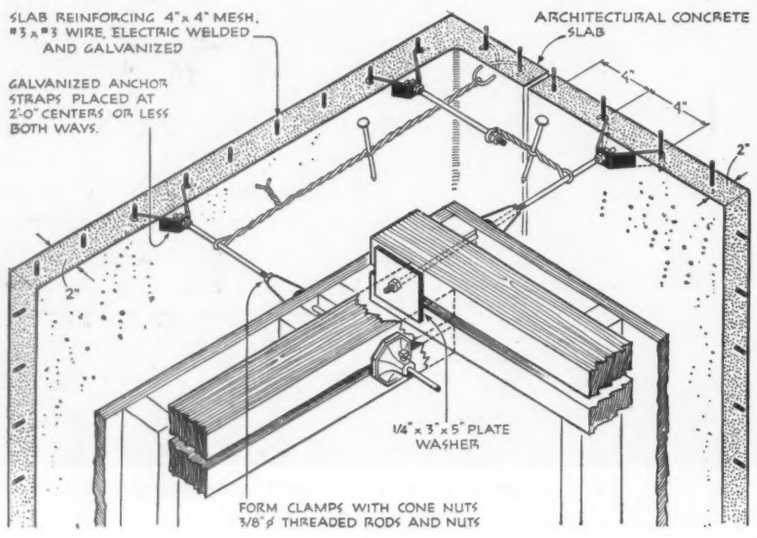
MADE WITH ATLAS WHITE CEMENT

THIN, precast Architectural Concrete Slabs frequently are used as forms for the structural concrete. This simplifies or reduces scaffolding and job forming.

Devices for tying the slab to inside forms usually are fastened to the reinforcing imbedded in the slab, thus providing secure anchorage.

When a satisfactory bond is obtained between the slab and the structural concrete, half the thickness is sometimes considered effective structurally.

Slabs may be cast in a variety of textures and colors, in sizes up to 100 sq. ft. or more, and in almost any desired shape. Returns, cornices, sills, lintels and lugs for anchoring may be cast integrally with the slab.


SLAB REINFORCING 4" x 4" MESH, #3 x #3 WIRE, ELECTRIC WELDED AND GALVANIZED
GALVANIZED ANCHOR STRAPS PLACED AT 2'-0" CENTERS OR LESS BOTH WAYS.
ARCHITECTURAL CONCRETE SLAB
4"
4"
2"
2"
1/4" x 3" x 5" PLATE WASHER
FORM CLAMPS WITH CONE NUTS 3/8" ø THREADED RODS AND NUTS

TYPICAL USE OF ARCHITECTURAL CONCRETE SLABS AS FORMS FOR THE STRUCTURAL CONCRETE

PP-ACS-49

FOR FURTHER DETAILS of design, manufacture and installation send for the booklet "Architectural Concrete Slabs." Write: Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

OFFICES: *New York, Chicago, Albany, Boston, Philadelphia, Pittsburgh, Minneapolis, Duluth Cleveland, St. Louis, Kansas City, Des Moines, Birmingham, Waco.*

ATLAS WHITE CEMENT

For pre-cast **ARCHITECTURAL CONCRETE SLABS**

News

(Continued from page 20)

or abroad, will be considered by the Fellowship Committee at the University of Illinois.

Candidates must be graduates of the College of Fine and Applied Arts of the University of Illinois or similar institutions of equal standing, whose principal or major studies have been in music, art, or architecture. Conditions of award of the Fellowship may be learned by communicating with Dean Rexford Newcomb, College of Fine and Applied Arts, Room 110, Architecture Building, University of Illinois.

5 architects and 2 builders have been announced as jurors of the General Motors—Architectural Forum design competition for "Automobile Dealer Places of Business."

Those comprising the jury are: Wallace K. Harrison, New York; George L. Howe, Washington; Alfred G. Shaw, Chicago; Timothy L. Pflueger, San Francisco; and William W. Wurster, Cambridge, Mass., all architects; Robert W. Dowling, New York; and Hugh Potter, Houston, Tex., builders.

The competition will close at midnight, April 16. It is being conducted under the American Institute of Architects competition rules and 60 prizes totaling $55,000 will be awarded for designs within varying classifications. George Nelson, A.I.A., is professional advisor.

Your obsolete blueprints, drawings, stacks of preliminary sketches—those files of clippings and magazines from an era now past—all can play an important part in relieving the wartime paper shortage.

Architects are requested by the American Women's Voluntary Services, Inc., to go through their offices and send all their waste paper to war. Paper is the urgent salvage requirement of our armed forces today. It is used for blood plasma containers, K ration boxes, shell containers, paper parachutes, etc. If you are going to design with fresh inspiration for the postwar world, what do you want with all that accumulation from the pretentious years?

There is no time to lose. Send your waste paper to your local salvage organization or dispose of it through A.W.V.S.

Henry T. Phelps
1872-1944

Henry T. Phelps, practicing architect in Texas for 50 years, died December 4 at his home in San Antonio. He was 72 years old. As a charter member of the Texas Society of Architects and a past president of the San Antonio Section, T.S.A., he had made many contributions to the interests of the profession.

Bystanders Are Not Innocent

Successive waves of over-pessimism and over-optimism about the progress of the European war cannot alter the grim fact that Total Peace is still a long way off. It will not come automatically, even with the final end of the shooting, but must be worked for today and tomorrow and the next day until the world is restored to a condition of wholly constructive economic activity. That, obviously, will take some doing. Time to plan for it is none too plentiful.

In a situation of this sort, no responsible citizen can leave to others his share of the job to be done. Just as the war has involved and affected every human being on earth, so will the reconversion and rebuilding of society require every man's participation.

Particularly is the architect concerned. No longer can he afford to await the client's bidding or confine himself to doing the merely profitable parts of his professional duty. He will have to exert that "leadership" he has claimed so long but so frequently shirked.

As everyone knows, a stable economy after the war will require a large and sustained volume of building. Whether or not America has depression or prosperity will hinge upon the quantity of building made ready to go ahead as soon as materials and labor are again available. Every architect should henceforth not merely stand by, ready to do the planning someone else may engage him to do, but should actively exert his persuasive powers upon all agencies that may become the initiating force for needed construction. Surveys show that there is great danger that neither public nor private agencies will be ready with enough plans in time to sustain the high level of employment we will need during the transition period.

Every architect should look critically at his community; should thoroughly know its present condition and its prospects and plans for the future; seek out the bad spots, the run-down buildings and neighborhoods that need rehabilitation and replacement, the traffic bottlenecks that need cleaning out. He should be able to see many things that are crying out to be done, many opportunities for the profitable investment of building capital. He, above all people, should have practical solutions to suggest. For some of his ideas he should be able to find private or public backing—if he goes after it energetically. As a citizen he owes it to his community and to his country to do this.

Pessimists, fascinated by the huge debt that has been piled up to pay for destruction, say we can't afford to build the "better world" that is to be made after the war. The paradoxical fact is that we can't afford not to; that it is only by cleaning up our slums, re-housing people on a vast scale, reorganizing and improving our cities and towns, building new roads, bridges, dams, schools, hospitals, and community centers that we can support the high production level to which we are now committed and avoid slumping back into confusion and chaos.

Whoever fails to stir himself to positive action during the coming months and years of the world's fight back to equilibrium, will be just as guilty as though he fought on the negative side. There can be no "innocent" bystanders.

Kenneth Reid

SCHOOLBUILDING DESIGN

Whereas formal education once consisted of cramming pupils with facts, emphasis is now placed upon understanding and cooperation, upon developing intelligence capable of using facts. At least this is the intent. If such a program is not universally adopted, perhaps that state of affairs is in part due to the type of buildings which customarily house it. The schools we show here are not run-of-the-mill nor are they of uniform excellence; but they not only look, they work, differently than did the school of, say, 1915.

What should a school plant — building and grounds — do? It should offer pupils a congenial environment, understandable to them as children, well related to the community it serves. Most people — and schoolchildren are people — resent the uncongenial, the incomprehensible, a state of mind which hardly benefits the educational process.

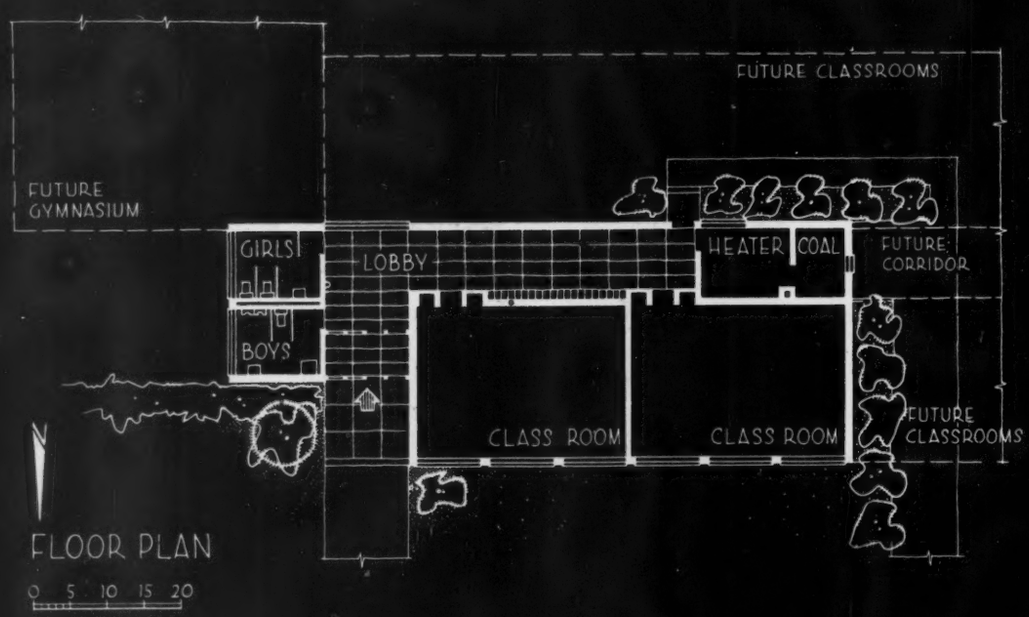
It should go without saying that the school should be designed for convenience, yet how many times is it a monument (to what? the school board?) rather than a convenient place in which to learn!

Three Lanham Act Schools

EBERLE M. SMITH ASSOCIATES, ARCHITECTS-ENGINEERS

1 SAND HILL SCHOOL
RURAL WAYNE COUNTY, MICH.

In this small rural community near Detroit, school facilities formerly consisted of an old, wooden, two-room building at one end of the district. The new building serves a new, privately developed, low-cost subdivision, and since it was entirely financed with Federal funds, cost had to be kept to a minimum: $16,760.27.



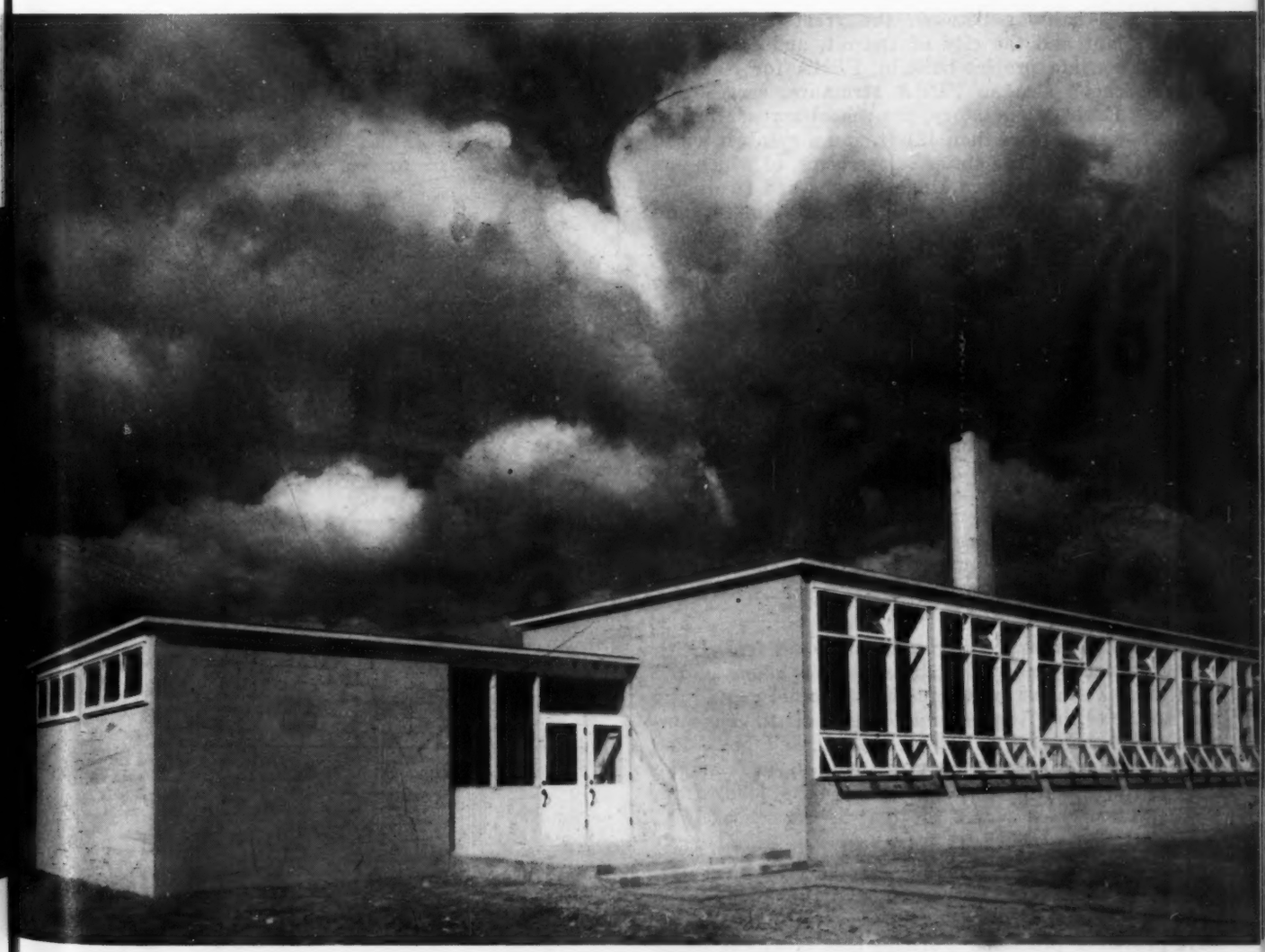
Just because it is a fairly heavy drain on the community purse, its cost should be held to the minimum consonant with the requirements. Certain portions (sports facilities, auditorium, spaces suitable for adult education, etc.) may have to become centers of activity for the entire community in order to justify their shares of the cost. And since the one sure thing about education is that it will change with the times, the school structure must be capable of sheltering each new development without restricting it. Of what use is a better pedagogical technique if the schoolbuilding prevents its use?

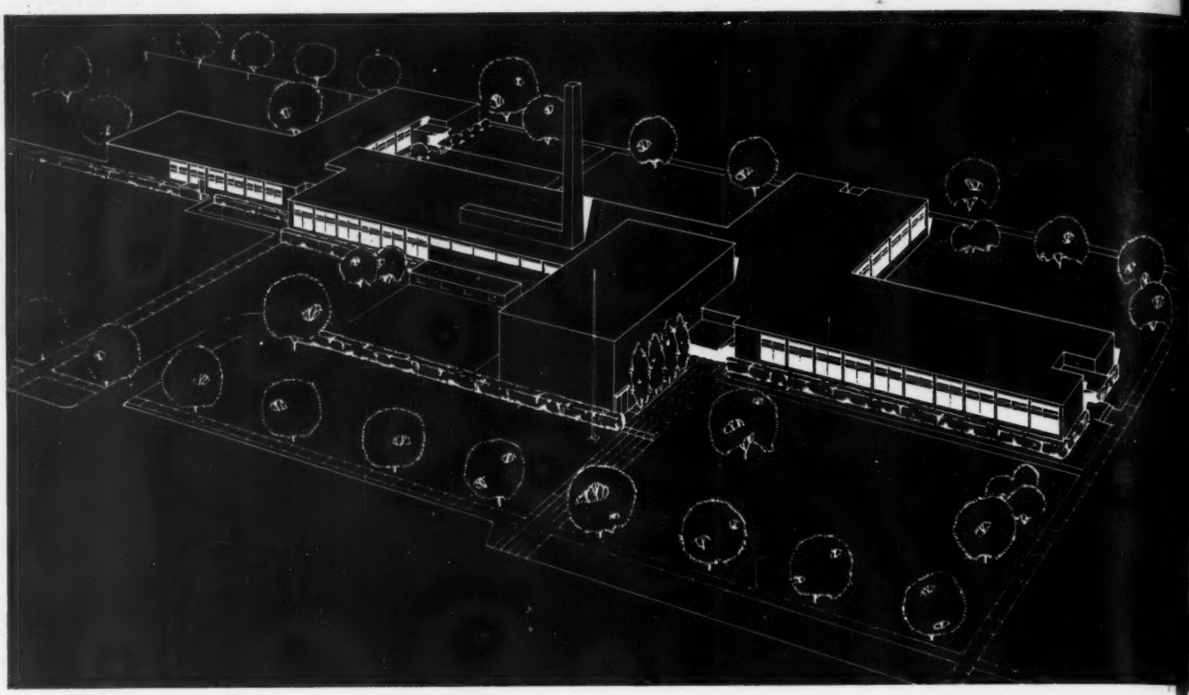
The schools presented here have differing antecedents, but all reflect educational trends. Some were built directly as a result of the war; some show war's effects in the materials employed in building them; at least one was mostly built before the war. Although some have obvious faults — even though some bear the unmistakable imprint of the dead classic thumb — each in its precise way is better than the schools we used to build.

Near Detroit Employ Similar Classroom Units

Built during the metals shortage, it is constructed of cinder block with a wood roof. The structural block is also the finish, inside and out.

The situation in many respects parallels conditions which gave birth to the familiar American little red schoolhouse. Although the times now are far from hard in the sense that they were then, the necessity here did exist for extreme economy of money and materials. Faults can be found in the Sand Hill School. It is unilaterally lighted (which some educators now say is not universally desirable); storage space for teaching aids is limited, and so on. But classroom windows do extend from wall to wall and to the ceiling, eliminating the glare-causing contrast between window glazing and adjacent dark interior wall surfaces; and there is a definite scheme for expansion should it be needed. The classroom unit, with modifications, is used in other schools by the same firm, shown on subsequent pages.





2

CARVER SCHOOL, INKSTER, MICH.

Eberle M. Smith Associates, Architects-Engineers

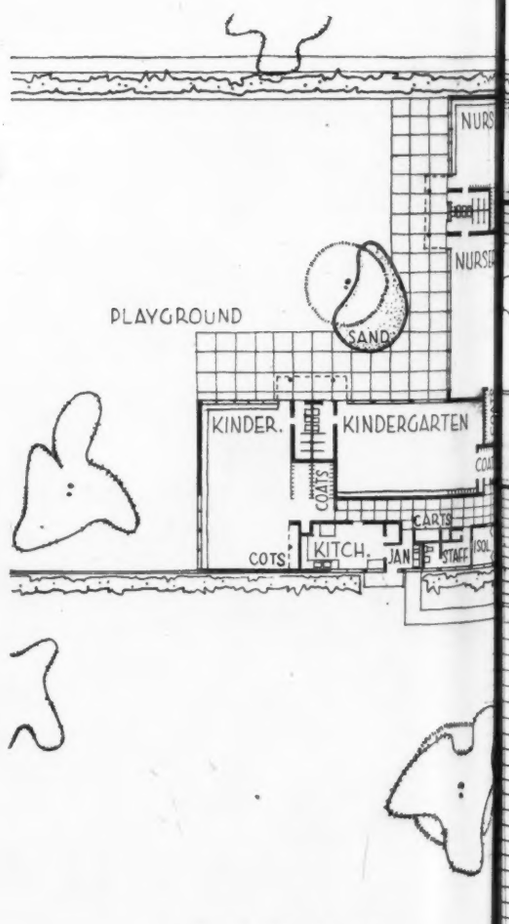
Inkster lies halfway between the great Willow Run bomber plant and the city of Detroit, and contains a 500-unit housing project built by FPHA for Negroes. Carver School, also an FPHA structure, serves this project. Entirely one story, the school spreads out to a total length of more than 421 ft. and a greatest width of over 191 ft. It has sixteen classrooms, of which one is used as a library; two kindergartens and two nurseries, with their own clinical facilities, office, and kitchen; and a multi-purpose room for use as auditorium, recreation room, or cafeteria.

Design and Construction

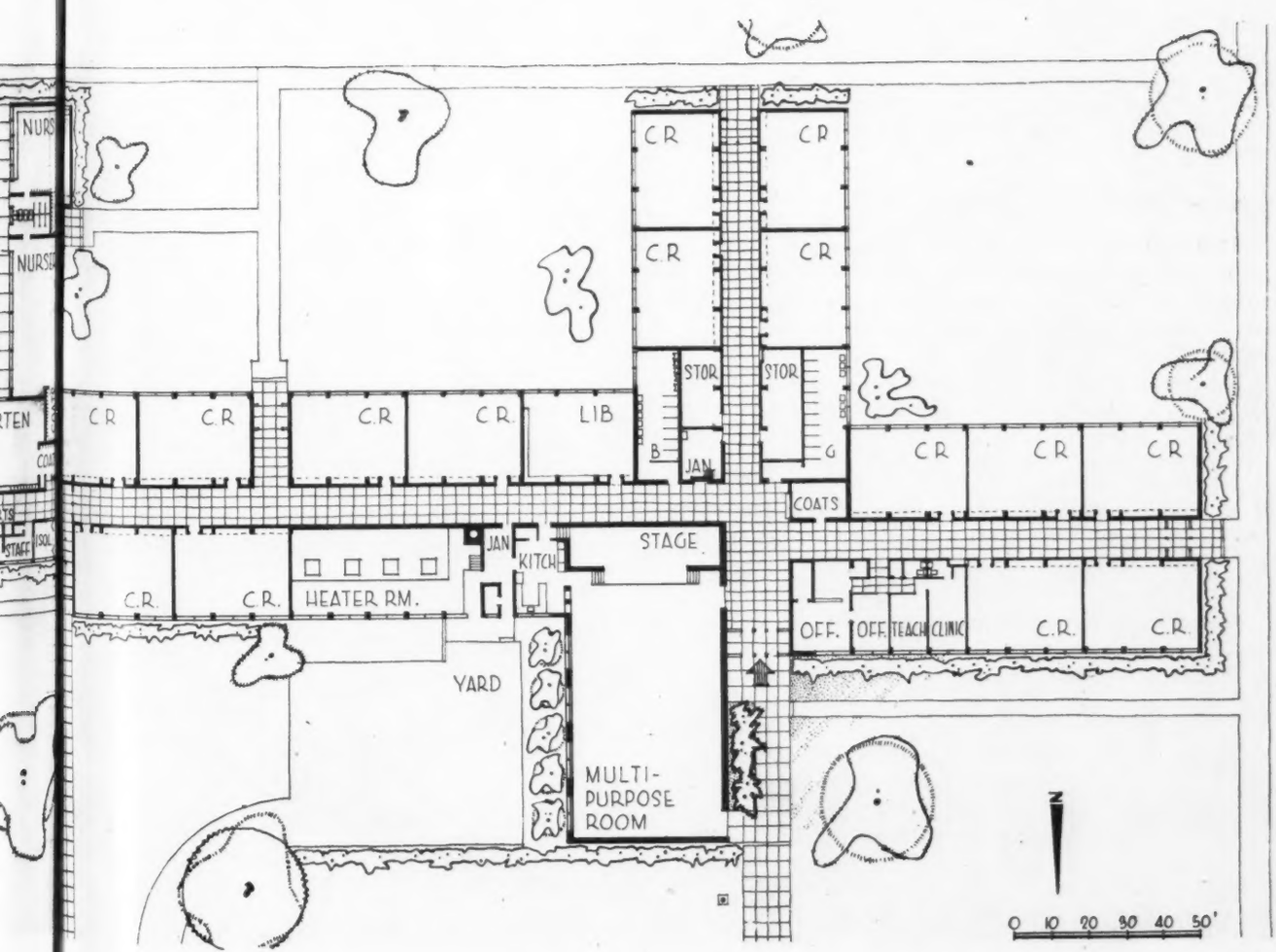
In general, the plan is schemed around the same classroom unit used in Sand Hill School (see preceding pages), and is conditioned by the same needs for economy. Waterproofed cinder block forms the wall structure and finish; the roof is wood; floors are principally asphalt tile laid on the concrete slab. There is no basement. Except in the nursery wing and multi-purpose room, cinder block piers between windows are uniformly 10 ft. 6 in. on centers; corresponding rows of piers either side of the central corridor simplify the roof framing. Each classroom has a teachers' closet, bookcase, and children's lockers in the recesses between these interior columns.

The four kindergarten and nursery rooms (each with its locker alcove, and with individual toilet rooms paired back-to-back against partitions which do not run all the way to the ceiling), open outdoors to a continuous concrete play area and a large common sand box. The whole nursery-kindergarten unit turns its back on the upper grades, and doors separate the units' lobby from the corridor which serves the rest of the school.

One cannot help but admire the straightforward orderliness of the plan, the sterling simplicity of the building in conception and execution, and the inclusion of those social necessities, the nursery and clinic, which have proved so practical. Perhaps that is why it seems



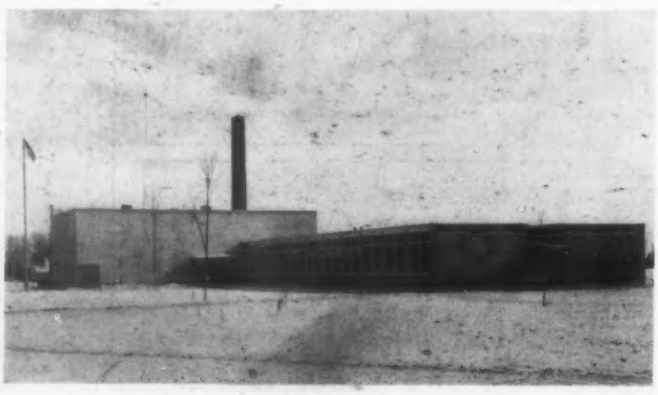
FLOOR PLAN

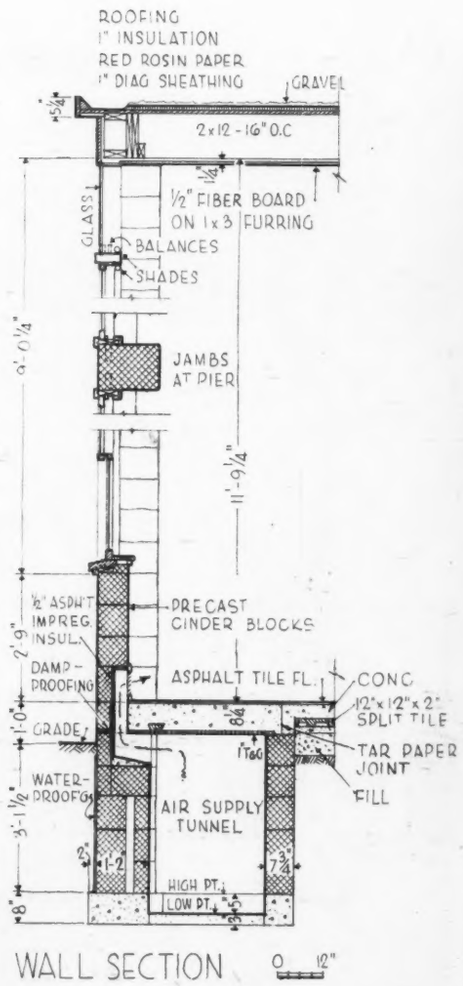

C.R.
C.R.
C.R.
C.R.
C.R.
C.R.
STOR
STOR
B
JAN
G
LIB
C.R.
C.R.
C.R.
C.R.
C.R.
C.R.
C.R.
COATS
JAN
KITCH
STAGE
C.R.
C.R.
HEATER RM.
OFF.
OFF.
TEACH
CLINIC
C.R.
C.R.
YARD
MULTI-
PURPOSE
ROOM
N
0 10 20 30 40 50'

a pity the standard 23½-by-31-foot classroom—desirable as it may be as a working unit in certain circumstances—should be so rigidly repeated for fifteen different classes in locations having four different orientations. Of course, not all the governing conditions can be appreciated from a fixed editorial desk. Nevertheless, educators with whom we are in contact advocate such things as more complete physical, visible separation between outdoor play space for nursery babies and kindergarten youngsters than is here available; such things as a stage with better facilities for moving scenery on and off than are provided by a 3-foot passage containing five risers, a right-angle turn, and two doors in a length of about 10 feet.

Such criticism comes partly out of disappointment that a schoolhouse so truly progressive in design (what an improvement it is over the usual pompous, be-colonnaded school of its size!) should stop abruptly short, whether the stop is caused by the architect's own decision or by the antiquated conception of the school which is embodied in most schoolbuilding codes.

Priorities could not be obtained for a steam or hot water heating system, so a direct-fired hot air system, with four furnaces each supplying a separate zone, was installed. The furred-down corridor ceiling contains return air ducts.

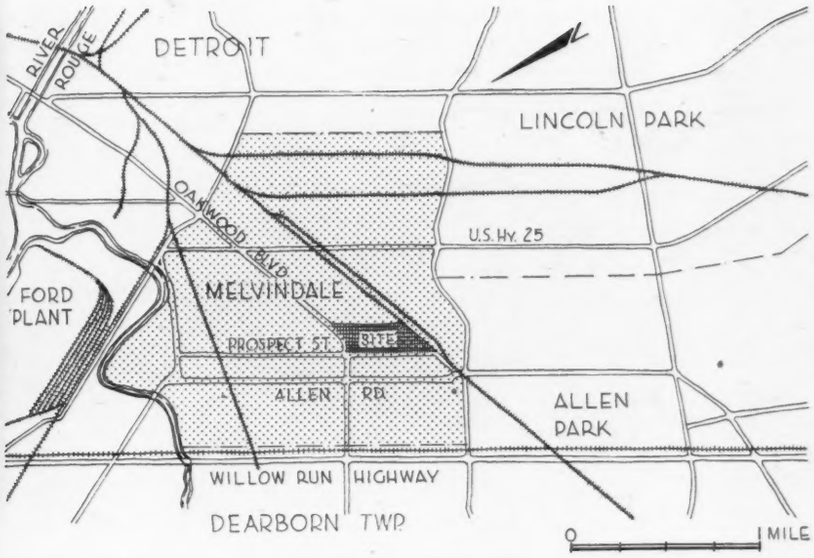




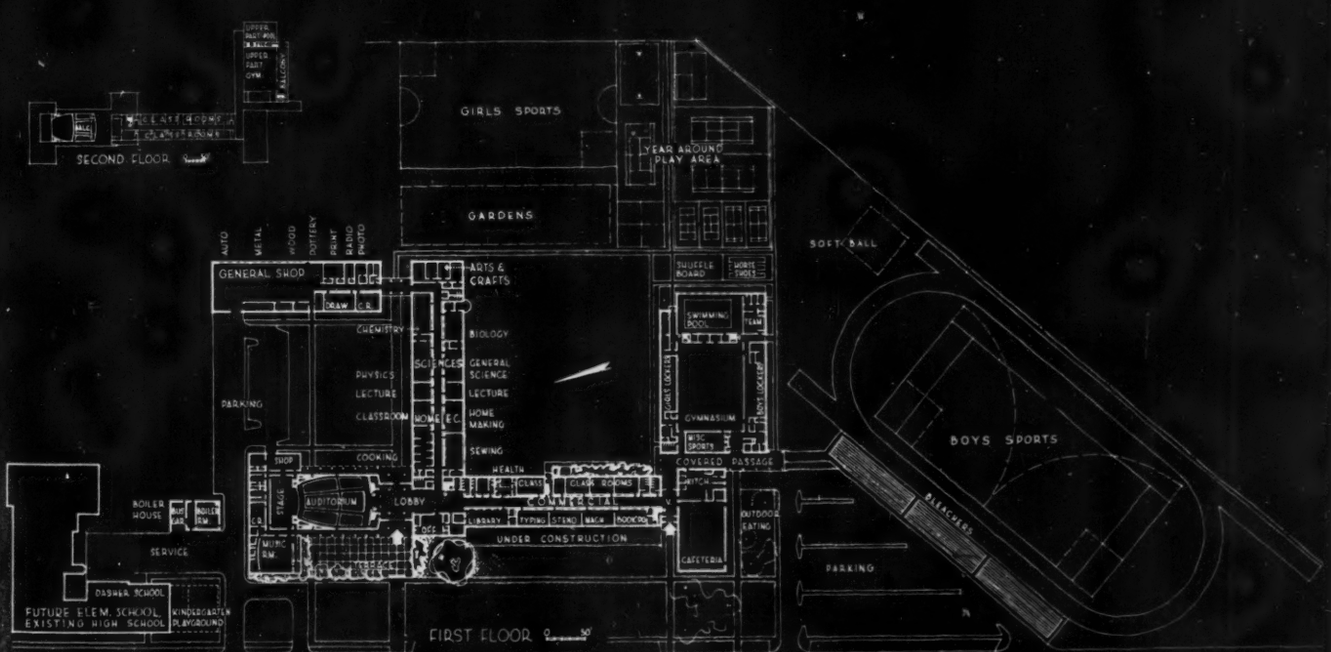
WALL SECTION

3 MELVINDALE, MICH.

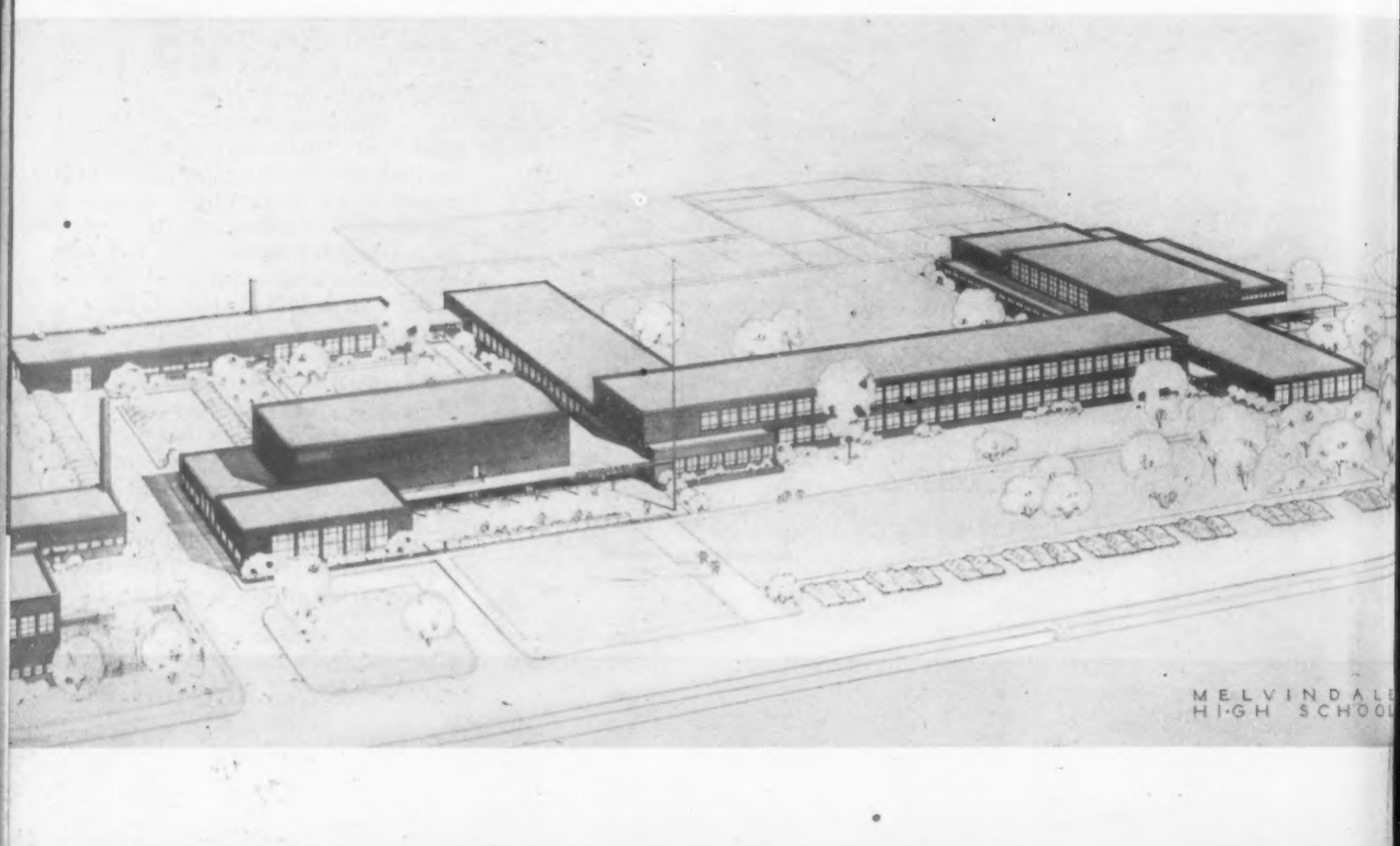
Eberle M. Smith Associates, Architects-Engineers

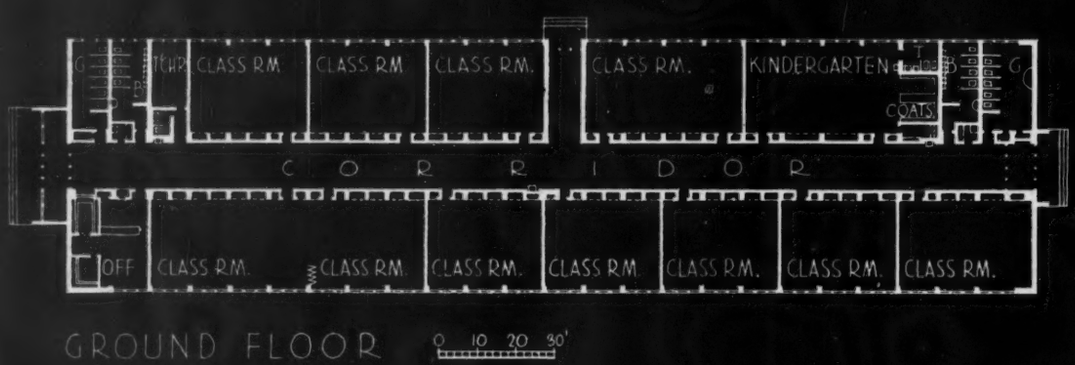


Melvindale is one of the largest school districts in the Detroit area, and though it adjoins the Ford Rouge plant, contains none of its taxable industrial property. Yet the district badly needs adequate facilities, particularly for the 800-student high school which is currently housed in an obsolete building constructed as an elementary school. At left is a map showing the relation of the proposed new school to the region; below are the site and building plans, showing the extent of development contemplated; and on the following page are plans showing the small central portion which is now being built. The building is to be of brick construction, "fireproof" since parts of it are to be two-story, and is to house elementary grades until the science wing is added. Then it will be converted into a high school.



MELVINDALE SCHOOL, EBERLE M. SMITH ASSOCIATES, ARCHITECTS-ENGINEERS





GROUND FLOOR 0 10 20 30'

At present only the central classroom block, and only the first floor of that, is to be built. However, the structure is designed to take a postwar second story as well as for horizontal extension. The entire development, from consideration of the future of the region to planning the specific units here presented, is an excellent example of cooperation between an architect and a progressive local board of education. Notice that the typical classroom is another variant of the unit shown as part of the two preceding schools.

HIGH POINT SCHOOL

Seattle, Washington

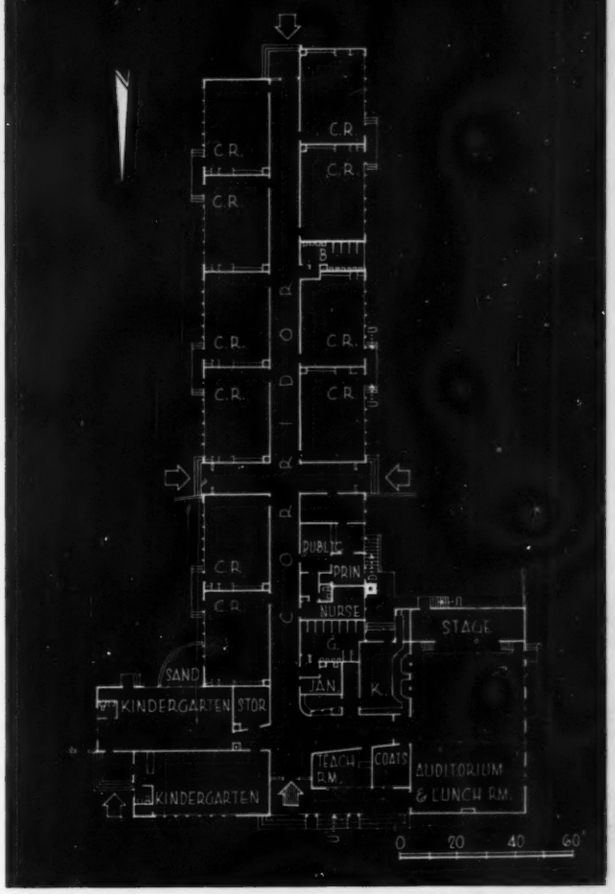
STUART, KIRK & DURHAM, ARCHITECTS

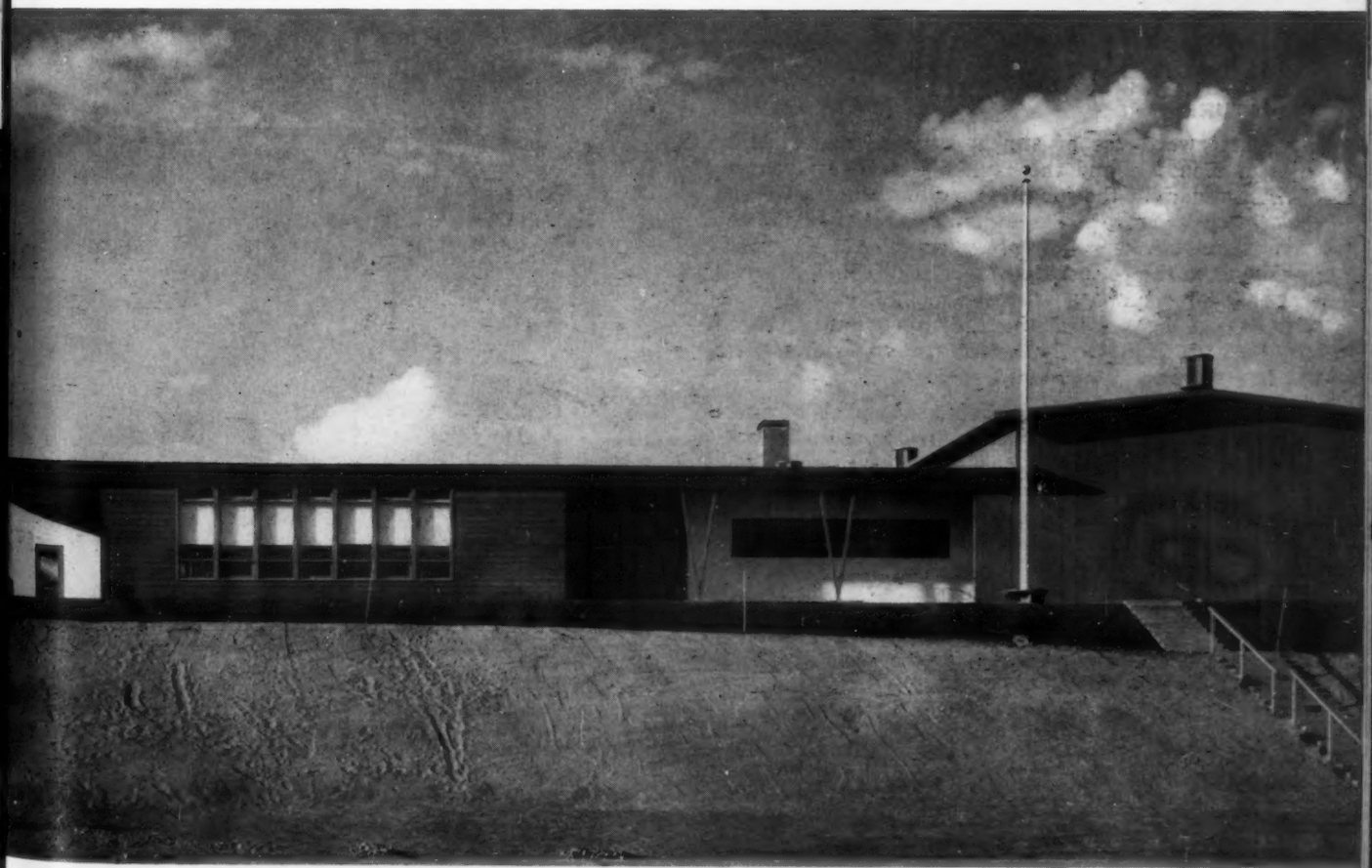
In developing the plans for this "emergency operations unit" under the Federal Works Agency program, the architects had to cope with several brain twisters in addition to the basic problem of providing a good environment for the kindergarten to third-grade-age children of 1,300 High Point homes.

War's demands meant the usual meager list of building materials. Almost in the realm of the mystical was the need to build a temporary structure in a permanent housing project in such a way that it would serve for an indefinite period without too much "temporariness" in either appearance or structural durability.

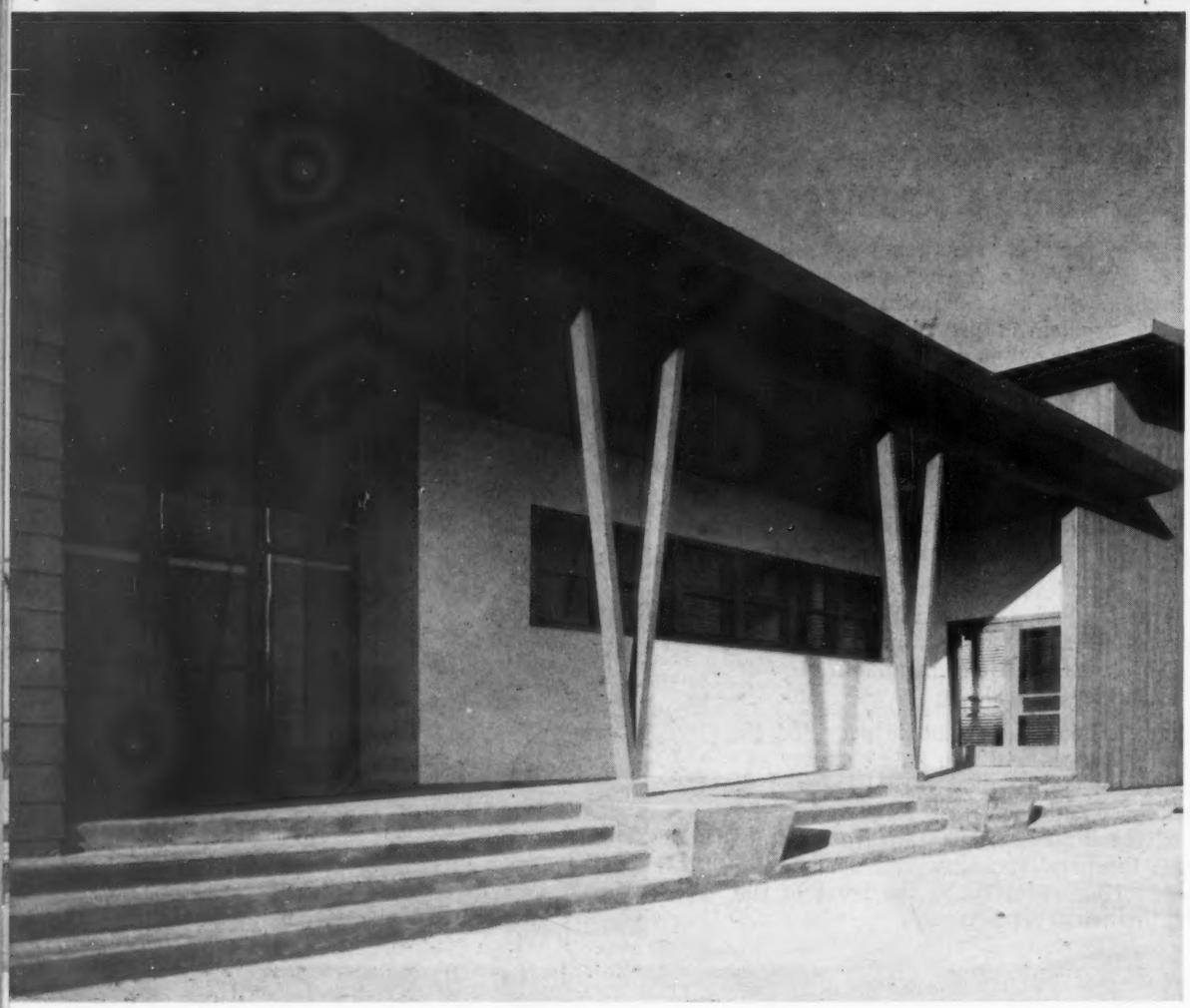
The site (the only space left after the completion of the housing) was a playfield, the central one of three arranged in terraces at about 25-foot intervals. The main entrance is so placed that it commands a view of Elliott Bay across the lower field.

Access to the grade school classrooms is provided by ten separate room entrances and two side corridor entrances (opening from separate play yards), as well as from the main entrance and doors at the far end of the wing. Location of the kindergartens (with a separate fenced play yard), teachers' space, service rooms, and the varied-use auditorium-cafeteria at the front of the building permits their independent use.





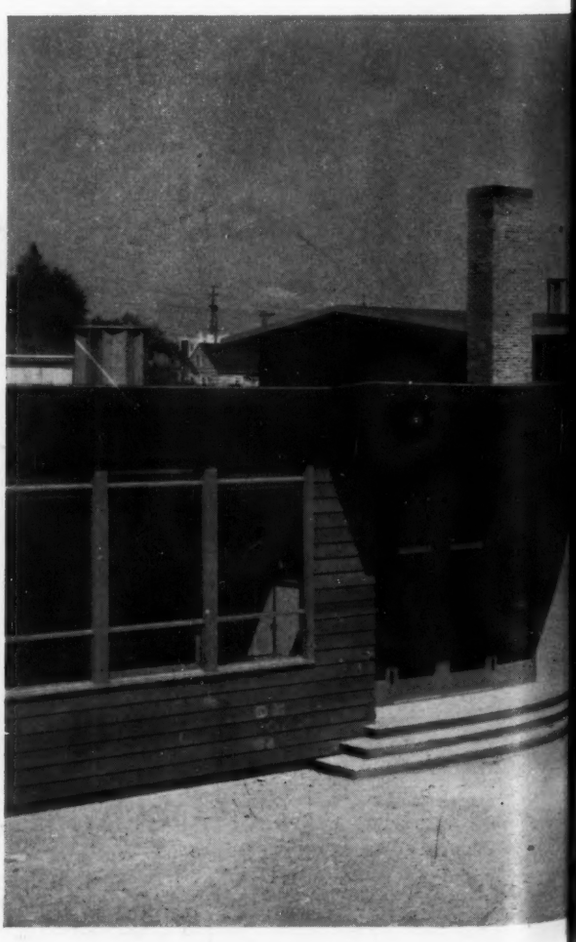
Photographs by P. A. Dearborn

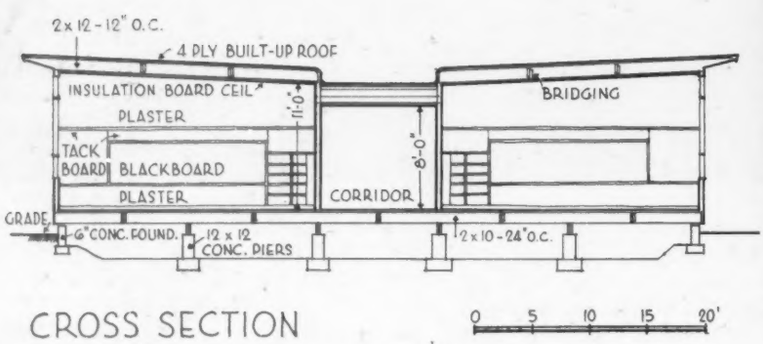


STRUCTURE

Straightforward use of simple building materials results in economy, and the carefully studied structural pattern assists in the job of providing a desirable educational environment. The building is all of frame on a concrete foundation; roof rafters serve as ceiling joists, in-sloping to the corridor construction. Employment of the corridor roof as a 10-foot-wide gutter does away with drip at the eaves, at the same time allowing higher windows, hence better light, from the exterior walls of the classrooms.

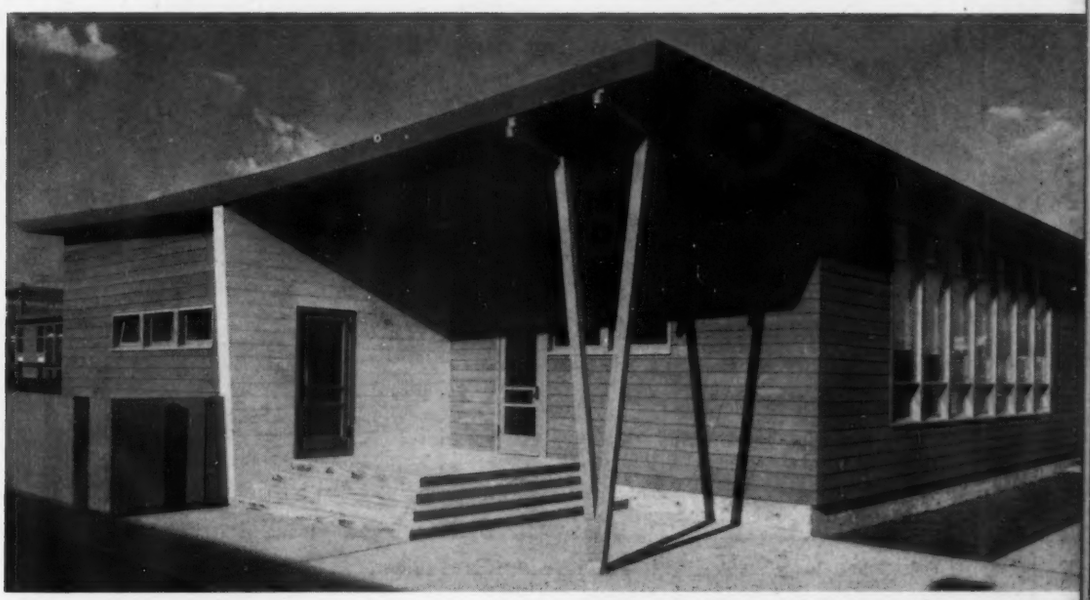
The three V-column roof supports are symbols of a wartime goal with which none will quarrel; but structurally and esthetically, one questions—perhaps speciously—if they may not be more fashionable than reasonable. From the standpoint of design progress, these three bold V's seem to express a measure of design Vanity rather than any clear-cut architectural Victory.



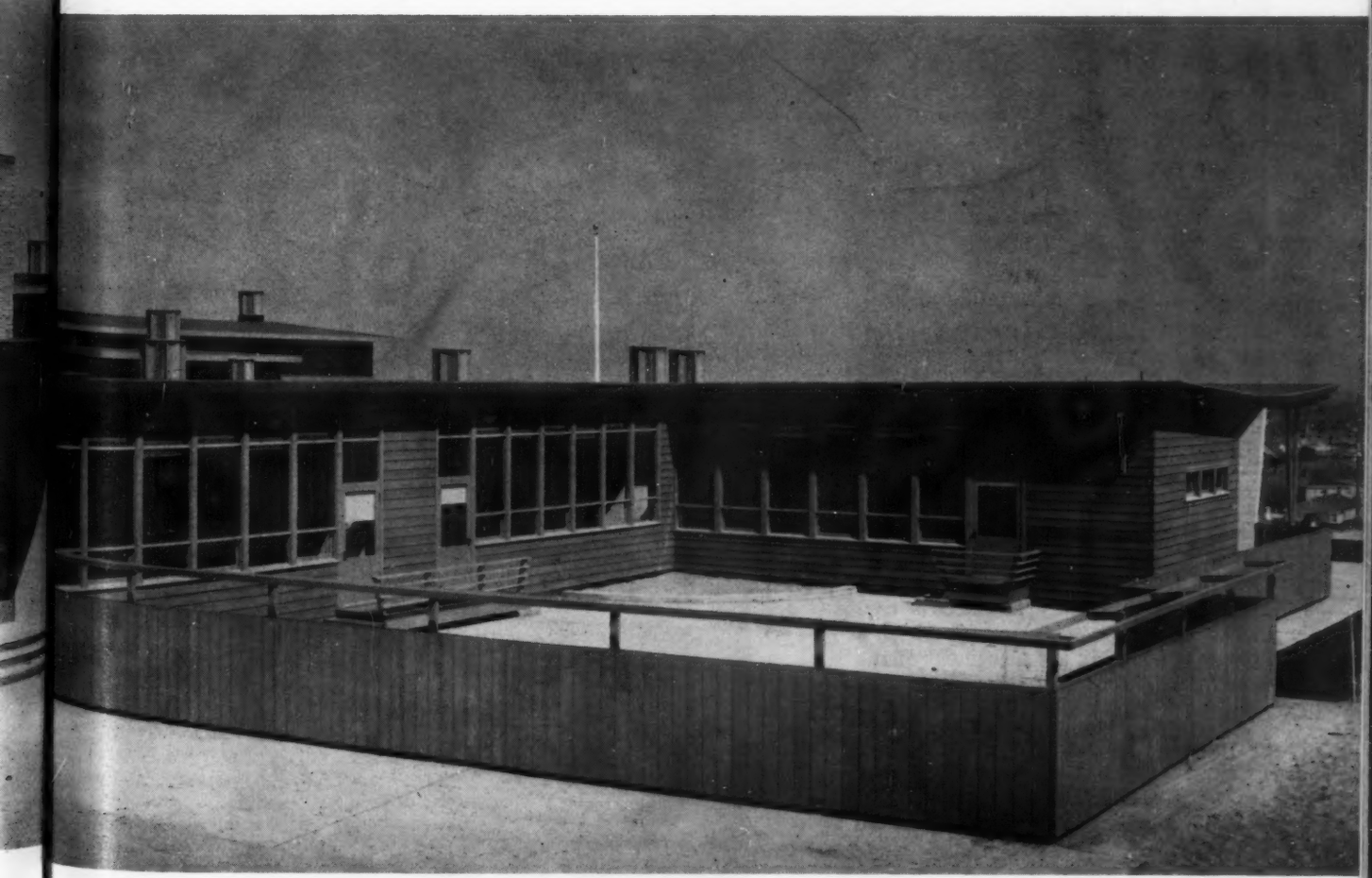


CROSS SECTION

0 5 10 15 20'



Kindergarten entrances immediately adjoin the gate to the high-fenced play yard. The eaves-height windows are equipped with operable panels at top and bottom to provide positive ventilation without draft. Rough-sawn clapboards are stained cherry red; vertical boarding is yellow, and the trim and soffits are painted turquoise.



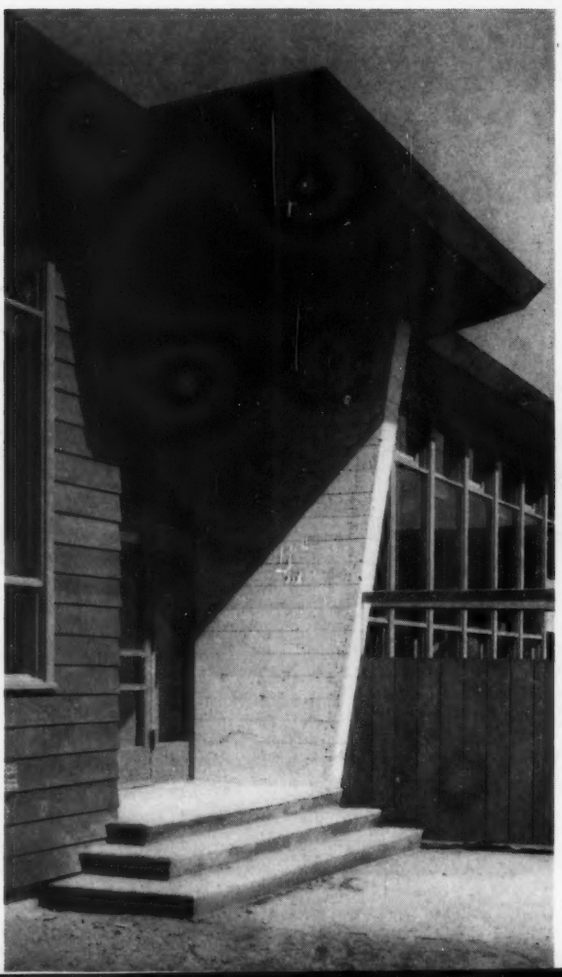
Wood trim is stained warm gray; plaster side walls and above blackboard are off white; the rear wall and the wainscot under the blackboard are painted either turquoise or coral.

STUART, KIRK & DURHAM, ARCHITECTS

CLASSROOMS

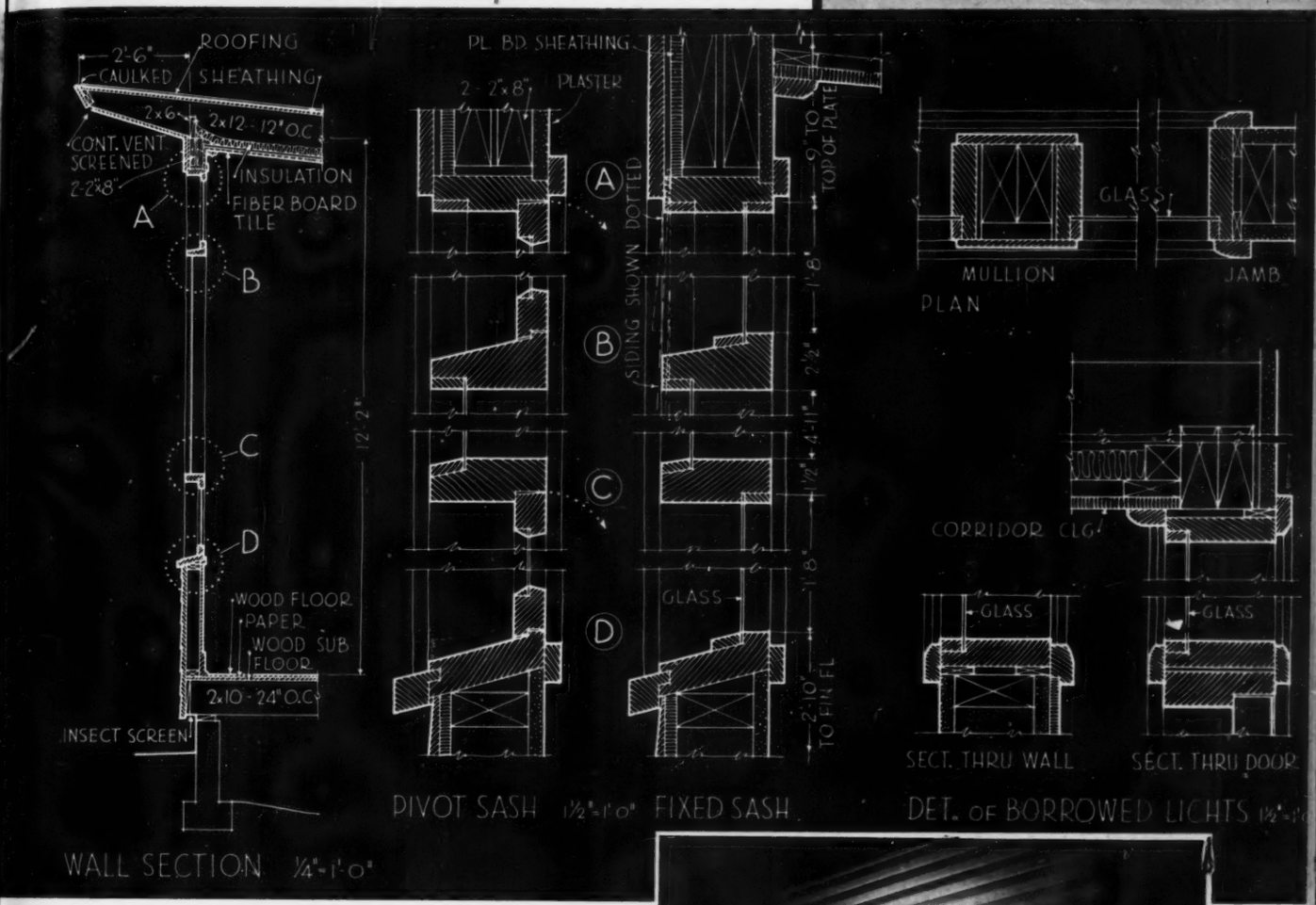
Window bands up to the ceiling provide abundant daylight, which is controlled by shades. The windows are purposely located toward the rear of the room, so that light comes to all desks over pupils' left shoulders. In the face of fast-changing educational methods, wherein next week or next year it may be desirable to arrange room units in some entirely different fashion, many architects will feel that this design detail encourages inflexibility; furthermore, termination of the windows this side of the blackboard wall inevitably produces a corner pocket of shadow—a factor for which a compromise is found in the placement of the blackboard at the center of the wall.

Classroom floors (except in kindergartens and first-grade rooms where asphalt tile is used) are of maple; ceilings are fiberboard tile; walls are plaster finish. Floors of corridors, auditorium, and kitchen are surfaced with asphalt tile.



Classroom Walls and Windows
Stuart, Kirk & Durham, Associate Architects . . . .

. . . Selected Details



The 10-foot corridors are lighted by borrowed lights with ribbed glass, which run from the top of the doors to the ceiling. The ceiling finish is insulation-board tile; flooring is asphalt tile.

SERVING COUNTER, LOOKING INTO THE CLERESTORY-LIGHTED KITCHEN.

STUART, KIRK & DURHAM, ARCHITECTS

AUDITORIUM

In addition to its use for lectures, dramatics, and social gatherings, the auditorium (unit at left of photo below) is also the school lunch room, served by a well equipped adjoining kitchen. A service court for both the kitchen and auditorium is screened from the school play yard by a board fence. Plaster is used for both the walls and ceiling of the kitchen; the floor is finished with asphalt tile, and linoleum is used on all work and service counter tops. The auditorium is roofed with light member trusses fabricated with ring connectors.

The entire school is heated by a forced hot-water system with stoker-fired furnace. Total cost of construction: $101,320.

THE WEST PLAY YARD, WITH AUDITORIUM-LUNCH ROOM AND SERVICE AREA IN BACKGROUND.

CODES

SHOULD BE INSTRUMENTS FOR SCHOOL PLANNING

—whereas most schoolbuilding codes in existence are restrictive. The author, whose work with the Board of Education of the State of Connecticut has given him an intimate knowledge of the typical schoolbuilding code, contrasts the usual "regulatory" mechanism with the informative code which might be drawn up to give school designers insight into educational problems as well as more technical matters.

by JOHN E. NICHOLS, A.I.A., Supervisor
School Buildings and Plans
Connecticut State Department of Education

There was a time—not nearly long enough ago—when schoolhouses constituted the most hackneyed and uninspired of all the fields of architecture. They were the lowliest and apparently the most contemptible of all public structures—cast all alike in a mold that was thoroughly stark and hideous. Then the schoolhouse was the legitimate prey of any young architect bent upon a few scalps to establish his claim to experience. But why not? It was widely understood that a schoolhouse posed no real problem and therefore no challenge to a designer's abilities. There was precedent aplenty. Departures from precedent were frowned upon as unnecessary, wasteful, and even dangerous. The young architect had only to look about him and copy faithfully what others were doing. What was good enough for Podunk was, of course, just what Timbuctoo needed—barring a few minor adjustments in size.

The results of this attitude still are here to limit and otherwise control the school program today. These buildings—foursquare and ruggedly frugal—comprise probably a majority of the schoolhouses in use throughout our nation. In effect, they are nothing more than groups of one-room schools, gathered for convenience and economy around indoor toilets and auditoriums.

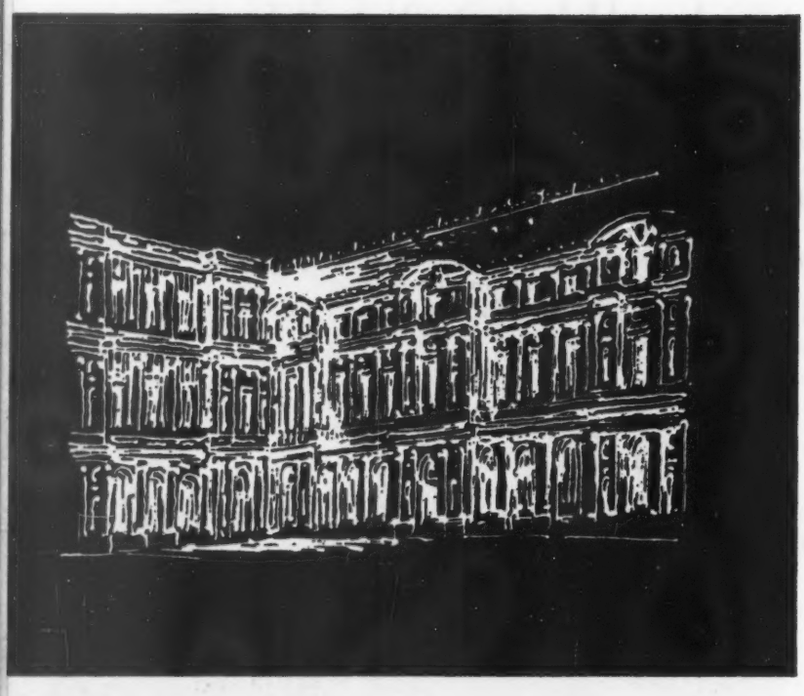
The blame for this situation does not rest primarily upon the architect. By far the greatest share of it can be laid at the doorstep of the educator himself, and of the public whom he had failed to reach. The schoolhouse was simply a natural outgrowth of education itself as it was commonly thought of at that time.

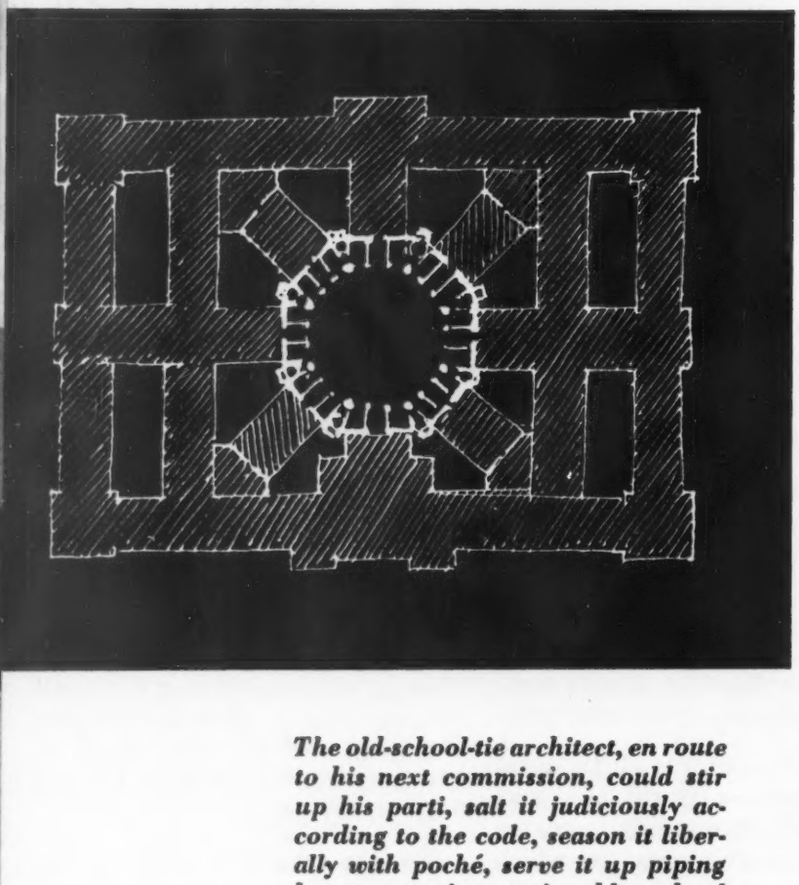
The school then was a little world unto itself—a world of books and chalk, thoroughly insulated against the living realities which existed outside. In its monastic way it was concerned with knowledge and facts for their own sakes, and for their mysterious impact upon the inner man. The pupil was not an individual at all. He was not even a child. He was a receptacle for and the future guardian over this world's accumulation of knowledge.

BUILDINGS FOR THE RECEPTACLES

The building needed for education of this kind was simplicity itself. Fundamentally it was only a convenient place where the receptacle might repose safely and more or less comfortably while being filled. For this purpose seats were provided, fixed row upon orderly row. In one of these, assigned to him, the pupil could listen, read from his texts, and parrot his facts back to teacher as proof that he had mastered them.

For the sake of convenience pupils were grouped into classes according to the number and dif-





The old-school-tie architect, en route to his next commission, could stir up his parti, salt it judiciously according to the code, season it liberally with poché, serve it up piping hot to an impressionable school board—and get away with it.

ficulty of the facts they had mastered. The classes, in turn, were housed in cubicles arranged along a central corridor. Each class was a monarchy, a little sovereign kingdom, independent of and separate from all the others in a world that could little boast of international intercourse.

This pattern held for high schools as well as "grammar" schools. For though the older children circulated from room to room, they were visitors in each kingdom in turn. While there they renounced allegiance to all others. There was the kingdom of English, the kingdom of Latin—of Mathematics, History, and Science. From time to time new kingdoms sprang up to bid for recognition: Manual Training, Cooking, Sewing. But these upstarts were almost invariably relegated to the depths beside the boiler room and toilets. They were outcasts, frowned upon by the academic 400.

The subject itself, neatly and conveniently tied up in a watertight package, was the important thing. The pupil was a bothersome though essential accessory. He was expected to carry over the knowledge gained in one specialized area of subject matter and apply it to another wholly unrelated area—a feat the teacher apparently was either unable or unwilling to accomplish. More than that, the pupil was expected to integrate within himself those unrelated scraps of knowledge to form a well rounded, well educated, self-contained personality.

This was the school of *yesterday*—but the zombies still stalk abroad. It is what far too many, including some architects if their products may speak for them, think of as a school today.

BUILDINGS FOR CHILDREN

Our schools have changed. And like everything else they are continuing to change. These two facts contain the meat of the problem which offers a challenge

to the very best in the profession of architecture.

The accomplished change is the tremendous growth that has taken place in the variety and specialization of the educational program. Subject has been piled upon subject with little weeded out and, too often, little changed. The old evils have thereby been multiplied. The pupil, bewildered and lost, is immersed in a flood tide of specializations. This cancerous growth is no stranger to the architect. He has labored desperately to cope with it, providing more and more cubicles to compartmentalize the monster. Having dismembered him and cauterized the sections with enclosing partitions, he too often thinks his job well done.

But what of those changes that are not yet accomplished, that are still in the early stages of their development? These offer the greatest challenge of all to ingenuity, to imagination, to the architect's sensitivity. There is an increasing recognition of the fact that education which is static is decadent. Healthy life invariably exhibits signs of change and development. As education changes in emphasis, and scope, and techniques, so must the physical facilities which are provided for education's use.

PUPILS ARE INDIVIDUALS

First, there is the growing recognition of the needs of the pupil himself, his needs as an individual. It is the recognition that education cannot deal with the pupil's intellect alone, apart from his body and his emotions. The pupil is a human being with human needs for play, for rest and exercise, for nutrition, companionship, beauty, incentive, security, responsibility, accomplishment, self-respect. If education loses sight of one of these and fails in it, it fails in the task of bringing about the development of a well balanced, healthy adult.

A change is being exhibited in the school's growing recognition of the futility of exposing the pupil willy-nilly to this body of knowledge, and then to that. The job to be accomplished, pupil by pupil, must eventually take precedence over the autonomy of subjects and class schedules. The old barriers between areas of subject matter are at last beginning to be broken down and each drawn upon as needed for what it can contribute to the individual. This will call for a revised concept of "classrooms" and of integration between facilities to the end that the activities they accommodate may be better coordinated. Only then will the school function as an organism rather than as a collection of unrelated parts.

HOW DO PUPILS LEARN?

There is a growing understanding of the mechanics of learning. Although the Army's educational exploits have revealed nothing new, they have dramatized the effectiveness of methods that ordinary educators—and the public—have been slow to accept. Briefly, the learner needs incentive through a realization of the usefulness of what he is learning and, in addition, through the opportunity to put newly acquired skills and knowledge to immediate, practical use. The less artificial their application, the more valuable. In short, education is coming to recognize that *doing* must accompany *learning*.

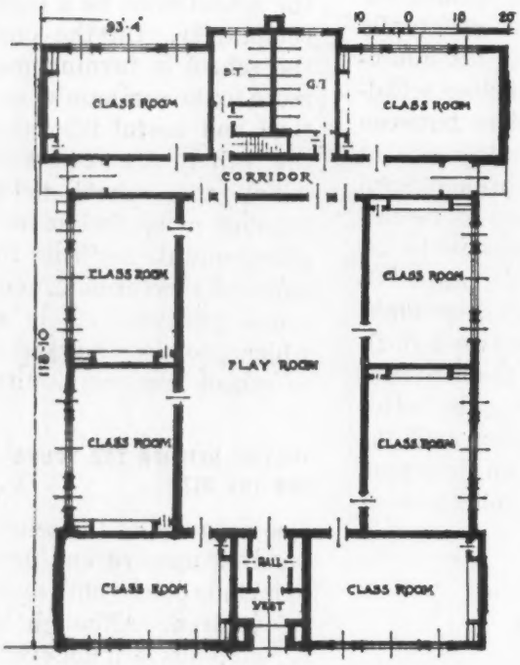
A change which has been in progress for many years, and is gathering momentum, is the shift of emphasis away from almost exclusive concern with an academic college preparatory program toward one better suited to the needs of that great majority of pupils for whom the public secondary school marks the end of formal education. Work of a decidedly vocational nature is taking its rightful place alongside that of a more "cultural" nature, to the end that youth may be better fitted to earn a living as well as to assume his other duties as a citizen in a democratic society.

School authorities and the public alike are coming to realize that the school must be a part of the community. On the one hand, the school is turning more and more to the community as a practical and useful laboratory. On the other, the community to which the school belongs is turning more and more to the school and its facilities for civic, cultural, recreational, and educational purposes. It is a trend which promises marked benefits to school and community alike.

THEY'RE NEITHER TOO YOUNG NOR TOO OLD

The program of the school is expanding upward and downward to include older youth and younger children. Although the kindergarten is still not everywhere accepted as a part of the public school program, the demands for nursery school education are already making themselves felt. At the other extreme, there is a pronounced need asserting itself for a continuation of the secondary program beyond the old twelfth grade. There is every indication that economic developments will cause this need to grow rather than diminish.

Turning from the developing functions of the school, there are other problems of cold economy. We must realize in a wholly practical way that there are changes outside the school which affect it very directly. First, there are the constant ebb and flow of populations that leave our schoolhouses stranded where no longer needed, that require them where they do not exist. There will be much of this in the years immediately following the war. They are wasteful and actually harmful to education—these half abandoned husks. There is a need, not for greater permanence of construction, but for lesser permanence at a corresponding decrease in cost. Second, a close relation of the first, is the problem of capital outlay for education. As the educational program



The plan at left and the three at the right are typical of school design not more than twenty years ago: symmetrical, ruggedly foursquare, solid—with the playroom(?), auditorium, or gymnasium carefully walled off from the public by a protective belt of classrooms. Particularly depressing is the location of boys' and girls' shower rooms, always a humid provision, below grade. Compare with the well ventilated Carmel School facilities, shown elsewhere in this issue.

improves in quality and expands in scope, an increase in operational costs will invariably follow. To offset them, at least in part, must come a means of providing the necessary facilities more cheaply than they have been provided in the past.

These, then, briefly stated, are some of the real problems that are facing education. They are the *real* problems that face the architect who undertakes to design a schoolbuilding.

There is but one excuse for the existence of a schoolbuilding: its performance as an instrument of education. No longer is it primarily a shelter for children, the excellence of which can be measured in terms of its safety and healthfulness for occupancy. Important as these qualities are, they are only incidental to the schoolbuilding's real function: that of making possible and actively encouraging the best possible educational program.

INFLUENCE OF THE ARCHITECT AND IMPACT OF THE CODE

The architect has a far greater influence on education, for good or ill, than many realize. His is a grave responsibility, indeed, for the building which he designs today will go on influencing the activities within it for many years to come. The building designed in terms of the present—no matter how carefully—will from that moment fall behind the advancing developments in education, and, falling behind, become a drag upon them.

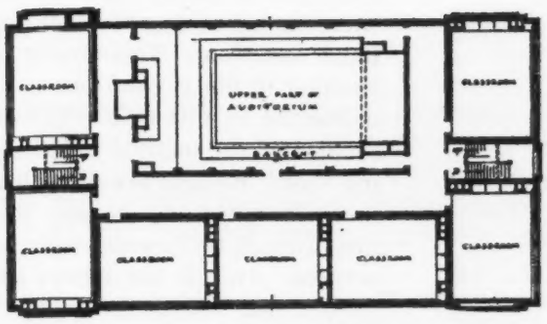
Beside the real, fundamental problems which face the architect, questions of fire-resistance and window sizes and numbers of toilet fixtures pale to insignificance. Such questions are concerned only with the tools with which the architect works in arriving at the ends he seeks.

School design has become complicated and difficult. It is a highly specialized field, calling for an understanding of the problems which must be faced, and for skill in their analysis and solution. The architect who relies solely upon his intuition or the convictions growing out of his own school experience is both presumptuous and foolhardy in the face of his responsibilities. But where is he to turn for an understanding of the problems confronting him and for guidance in solving them? To the School Building Code? Let us examine for a moment the typical school building code. It is composed usually of the following elements, expressed in terms of allowable minima:

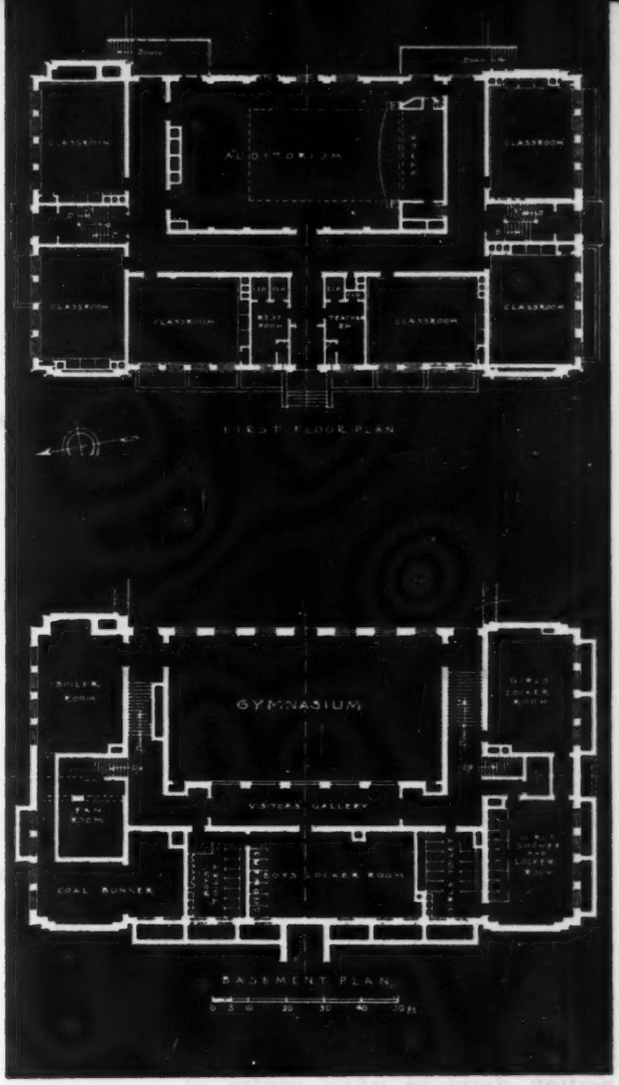
SITE—Required sizes, physical characteristics.

BUILDING—Orientation of rooms, distances from boundaries.

CONSTRUCTION—Types of construction compared with the number of stories, live loads and al-



SECOND FLOOR PLAN



lowable stresses, qualities and kinds of materials.

LIGHTING—Sizes and locations of windows, types of window shades. Number and wattage of lighting fixtures, wiring systems.

HEATING AND VENTILATING—Temperatures to be maintained, protection from radiators, amount of fresh air per pupil to be introduced, design of ducts.

PLUMBING—Types and numbers of toilet fixtures in relation to enrollment, methods of installation, design of sewage disposal systems.

CORRIDORS, STAIRS, EXITS—Widths and locations for emergency egress, enclosures, hardware, lengths and steepness of runs.

ROOMS—Length, width, height, blackboard, spacing of desks.

FIRE PROTECTION—Fire alarm systems, extinguishers, fireproofing, fire escapes.

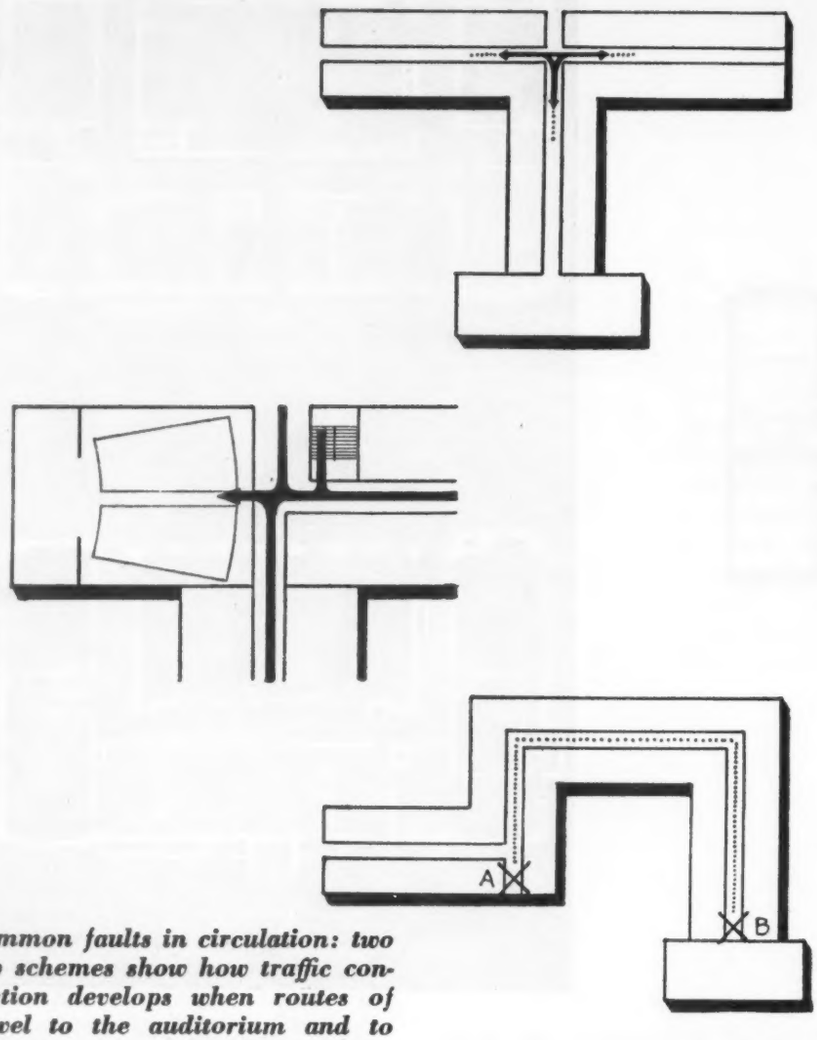
GENERAL—Forms, licenses, permits, contracts, insurance, bonds, etc.

How effective are such codes in producing really effective schoolbuildings? Little or not at all. They all but ignore the function the building must perform in the educational program. Through their exclusive attention to the immediate well-being of the occupants, they give the impression that this consideration is the only significant one. Thus they succeed in producing only a safe and comfortable shelter—a shelter which fails to recognize the very reasons for its existence.

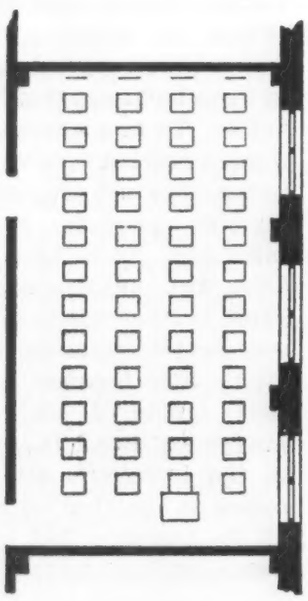
YET SAFEGUARDS ARE NEEDED

It is a tragic fact, however, that such codes remain a practical necessity. Despite the fact that most architects, without compulsion, would provide amply for the health and safety of the pupils and for economical building maintenance, there are always the fringe who would not. Either they are ignorant of the simple fundamentals of their profession or they lack the gumption to hold out against the demands of an ill informed client. The mandatory code can be a bulwark and a comfort. "You see," says the lazy architect, "I'd like to do this the way you want me to, but the CODE won't let me."

This code is concerned with regulation. It seeks to prevent a repetition of errors and abuses which have revealed themselves in those buildings that have gone before. To be successful in this, it must prevent evasive interpretation. It must plug every conceivable loophole, specifically, inflexibly. From this necessity arise two unfortunate results. First, in its efforts to cover every conceivable situation, the regulatory code becomes a cumbersome tangle of confusing and mechanical detail. In coping with it, the architect's attention becomes so absorbed with meeting all its demands that his efforts become stilted and cautious. Lit-



Common faults in circulation: two top schemes show how traffic congestion develops when routes of travel to the auditorium and to other general service facilities converge. Center scheme shows an auditorium reasonably accessible to the public, but in bad weather it might be hard for performers to reach the stage unseen. Bottom sketch: overlong corridor travel between rooms.



"Typical" classroom envisioned by most codes: four walls in perfect rectangle, 12-foot ceiling, 22-foot width, fixed seating, regulation blackboard, unilateral lighting, etc. What chance is there for differentiation of function? Variation in shape, multi-lateral lighting, abundant working equipment and storage facilities, flexible seating, and some degree of integration with the outdoors, are essential if the room is to fit its use.

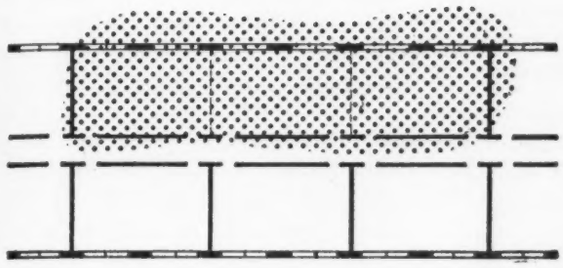
tle by little he loses sight of the bigger issues that once he may have glimpsed.

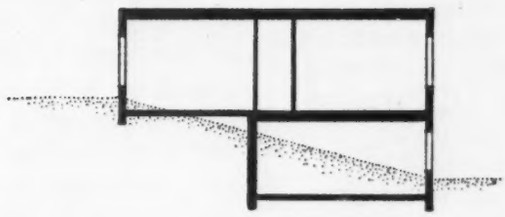
MINIMUM—OR OPTIMUM?

Again, in its efforts to be specific, the regulatory code too often succeeds in binding the architect hand and foot. This might be avoided if the regulations could define the results to be achieved instead of the method of achieving them. Results are difficult in most instances to define; they are difficult to forecast with exactness. And, if the means employed fall short, the harm is done and cannot be undone. Until the architect becomes the contractor, the client cannot reject and refuse to pay for a building that is disappointing in its performance. For protection, then, against the architect who aims just to get by, the methods he employs must be specifically defined.

It is a disturbing fact that minimum requirements become accepted optima in the minds of many architects. Perhaps this is understandable. The very multiplicity and detail of the regulations he faces force him to accept them as major objectives. It becomes a question not of accomplishing something through them but of just complying with them all. No wonder, then, that finally the minima become, not points of degradation below which his work must not sink, but the goals he is asked to achieve.

The regulatory code, built as it often is upon a concept of education and its physical needs that has been thoroughly discredited, tends actually to perpetuate mediocrity through procedures that are no longer adequate. We find in it directions for spacing desks and aisles—as though a satisfactory educational program could employ a rigidly fixed seating pattern! We find limitations upon the depths that classrooms may be sunk below grade—as though a semi-basement room could somehow be a satisfactory





If you take codes literally, when you need a large classroom to use as a shop, you must maintain the standard width. So you throw two or three "typical" classrooms together and equip the teacher with roller skates. And if the resulting room is half underground, well, shop work isn't exactly school work anyhow—or is it?

place for children! It even stipulates measures for waterproofing parapets whereas it would be difficult to discover any function which justifies their existence—and still they go on leaking. Regulations such as these go on year after year, conjuring up mental images in the minds of architects and schoolbuilding committees of procedures and types of facilities that have been long in dying because they are not allowed to be forgotten.

The old line regulatory code, then, has failed as a positive factor in the production of satisfactory schoolbuildings. It has tied the architect's hands, misdirected his attentions, perpetuated misconceptions and half-conceptions, and it has shed little light upon the real problems of function and design.

THE INFORMATIVE CODE

I am convinced that the architect would respond with greater over-all success to a far different approach. There are legions of professionally competent men who desire to do more than a mediocre job, who earnestly desire to do work of outstanding excellence. Given intelligent direction they can. Given a thorough understanding of the problems and objectives, a goal toward which to strive, they would rise above the morass of dull and lifeless half-measures.

For them the schoolbuilding code could be a source of information—even of inspiration. True enough, it would not form a prop for the weak or a defense against the unscrupulous and uninformed. But there is every assurance that in the long run it would produce results that the regulatory code cannot.

The informative code, as opposed to the regulatory code, would contain practical background information—stripped of pedagogical terminology—on the objectives and philosophy of education. It would distil our knowledge of child and adolescent psychology. It would provide an understanding of those factors which contribute to sound intellectual, emotional, and physical development. It would describe the mechanics of learning and evaluate the techniques of teaching.

UNDERSTANDING OF FUNCTION

Unlike the regulatory code which deals with the details of the school plant without reference to their functions, the informative code would deal with education as it affects the school plant. Instead of specifying the size of the site, it would first explain *why* various outdoor facilities are needed—their purpose, their bearing upon the educational process and upon the child's physical and social development. It would shed light on their importance to the recreational life of the community. It would discuss the uses and relative merits of various outdoor facilities and equipment, describe them, point out factors which need to be borne in mind when laying them out. The question of the site's size, then, would issue logically from an understanding of its function.

THE INFORMATIVE CODE COULD BE A WORKING TOOL

The informative code would deal with the many ways in which the layout of a building influences not only safety and health but also appearance and utility. The number of stories would be considered in the light of administration and convenience. Corridors and stairways would be studied from the standpoint of the demands of ordinary conditions affecting circulation and access—not those of emergency egress alone. Considerations of cost would be weighed against those of effective functioning in arriving at a solution designed to give the greatest returns in educational value.

Lighting would be discussed, not in terms of window sizes and locations, but from the standpoint of results desired and the reasons for them. And the informative code would be practical enough to point out the shortcomings of the teacher as an automatic shade regulator and light switch. It would be technical enough to resort to facts and diagrams on such items as glare, reflection, and wire size —but always from the viewpoint of the pupil's needs.

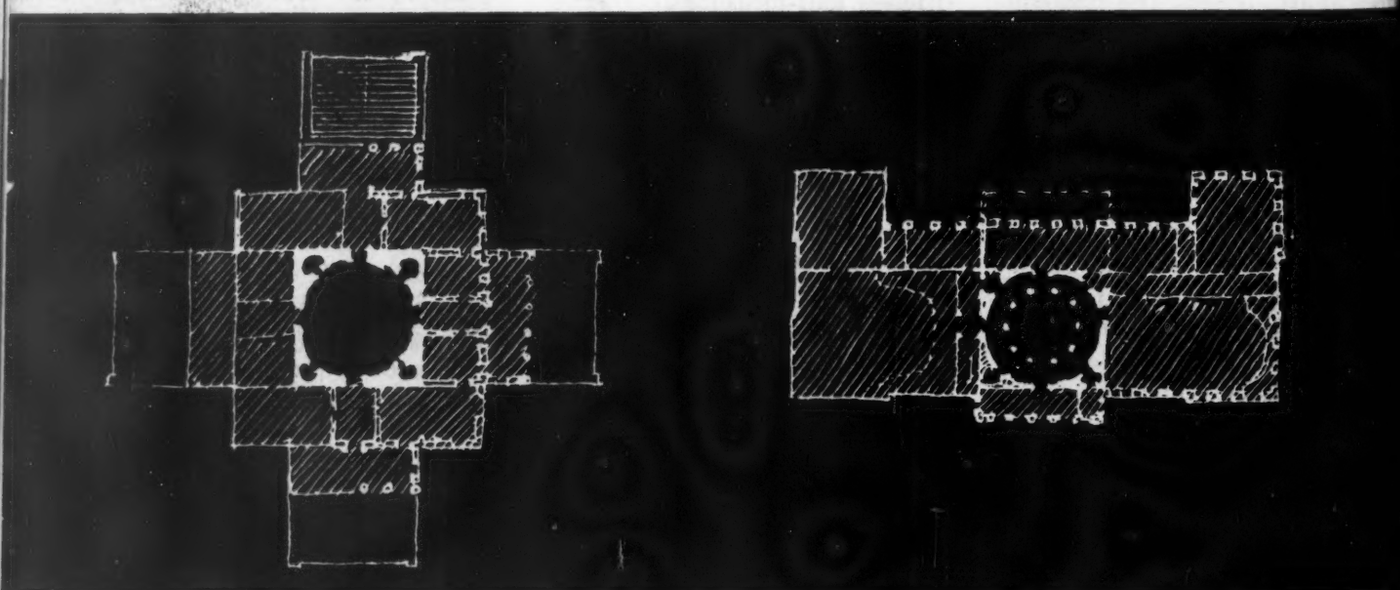
The classroom would not be just any classroom of specified dimensions and temperatures. It would be described in the light of the activities it houses and their purposes: just *what* takes place there, *how* it takes place, *what* materials and equipment are used, *how* they are used, *when* used, and *where* stored.

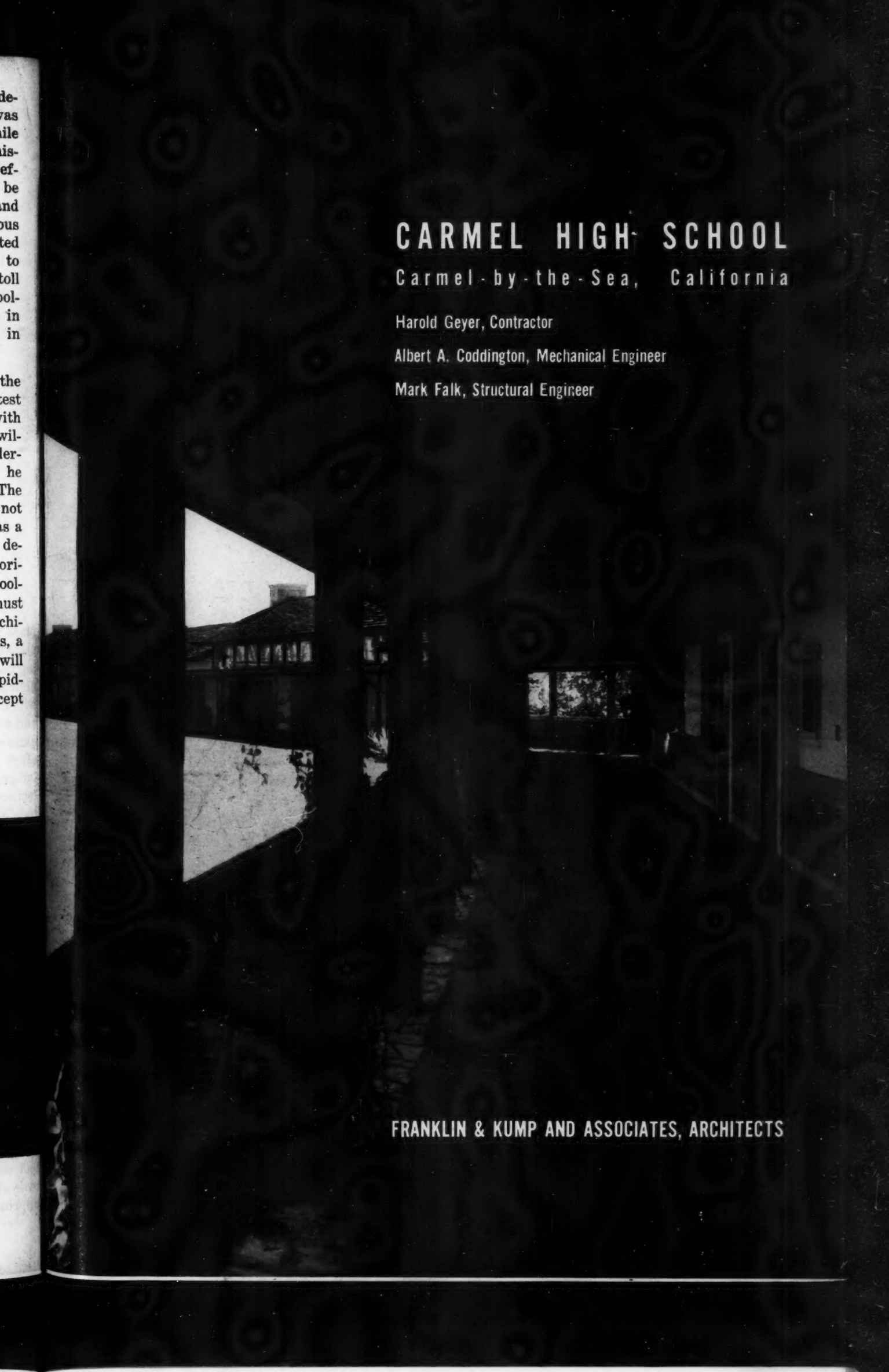
The informative code would explain the relationship between one activity and another. It would discuss the influence of physical relationships upon working relationships. It would outline the principles that operate to integrate the various elements of a building so that they function cooperatively.

It would list the many types of learning activities and services, discussing their value in achieving various ends. The school stage might then be seen as a working laboratory rather than a place for exhibitionism. The value of certain "frills" might then become apparent, together with their physical needs.

The old regulatory code was designed for the architect who was content to slap out his *parti* while running after his next commission. It was a handy, quick-reference volume which could be relied on to list the "musts" and not bother him with extraneous matter. It practically invited superficiality. We have but to look around us to see the toll which that approach to schoolhouse planning has taken in money and, more important, in its effects upon education.

The informative code, on the other hand, would be of greatest value only to the architect with the desire to excel and the willingness to study until his understanding of the problems he faces is a part of himself. The truly informative code does not exist except here and there as a timid shadow. But it can be developed—and if school authorities are to hope for the schoolbuildings they desire, they must place in the hands of the architect the information he needs, a vision of the ideal which will carry him far beyond the piddling minima that now we accept as "good enough."





CARMEL HIGH SCHOOL

Carmel-by-the-Sea, California

Harold Geyer, Contractor

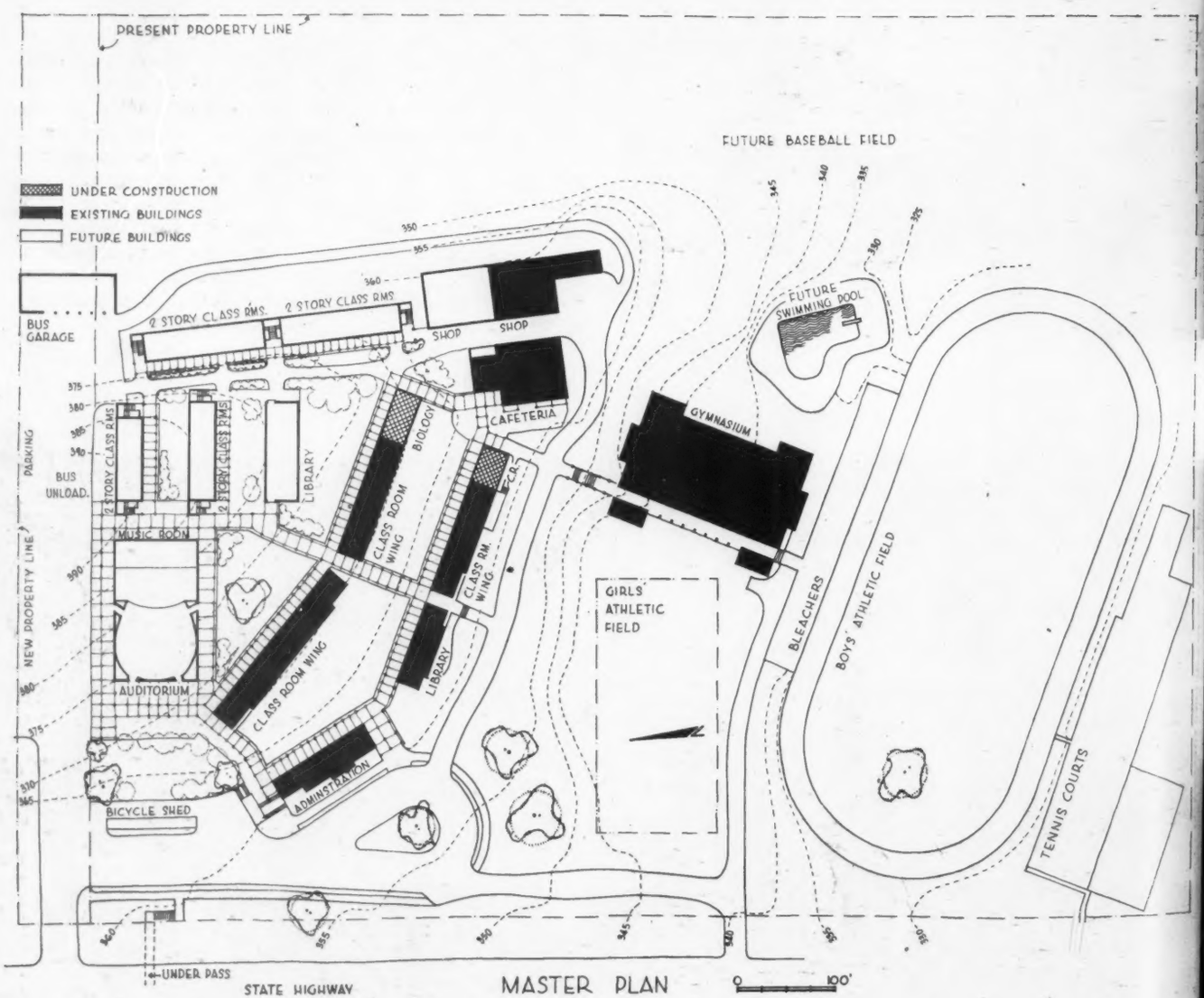
Albert A. Coddington, Mechanical Engineer

Mark Falk, Structural Engineer

FRANKLIN & KUMP AND ASSOCIATES, ARCHITECTS

GENERAL VIEW: CLASSROOM BUILDINGS AT LEFT; CORNER OF GYMNASIUM, RIGHT.

PHOTOGRAPHS BY ROGER STURTEVANT



DESIGN SYNOPSIS

THE SCHOOL PLANT

Eventual development is to constitute general cultural center, including large auditorium-theater.

Master plan insures intelligent future expansion.

Separate car parking provides for school use and athletic events.

Separate, though joined, buildings house separate educational functions.

Connecting, sheltered, outdoor corridors are organized to minimize cross-traffic and interference with various activities.

CLASSROOMS

All classrooms have substantially the same exposure.

Bilateral lighting is employed in all units.

Classroom width: 28 feet; length, flexible (within 4-foot interval); storage on window-wall side.

STRUCTURE

Built on a module of 4 feet for uniformity and economy of materials and construction time.

No permanent partitions; partitions independent of structure.

Employment of local, handmade materials in conjunction with contemporary, rationalized structural system.

TO OUTWIT OBSOLESCENCE

If a measure of the progress of architecture is the extent to which individual structures or groups of structures serve the human functions for which they were planned, anticipate growth and change in these functions, and are integrated with the development of the community and region in which they are built, then the Carmel High School deserves an exceptionally high rating.

The present efficient plant is but the first stage of a carefully-thought-out, larger, eventual scheme (see master plan); and the final scheme will be a general cultural center for the whole community as well as the particular environment planned for the secondary education of young Carmelites.

Perhaps most significant of all, there are no permanent four-walled classrooms to set physical limits to the type of activity—hence, to the type of education—which can go on within them. Instead, the architects and the school board had the vision to plan ahead for change and improvement in educational methods and provided ample, well lighted space that can readily be rearranged—the rooms made larger or smaller, fewer or more numerous—without any basic structural change.

The project occupies a superb 22-acre site a few streets up from the center of town. On every hand are lavish views—the Carmel Valley, Carmel Bay, Point Lobos, and the Pacific. The buildings, both present and future, follow the contours of the hilly upper portion of the site; athletic fields and gymnasium are on the more level, lower portion. Present facilities accommodate 250 children of 8th- to 12th-grade age. Eventually, the entire junior and senior high schools—some 1,200 students—will come to this community for their schooling. The present plant, built under two contracts (one, in 1939: administration building, library, and classroom building; the other, in 1941: cafeteria, shop building, and gymnasium), cost a total of $284,000.

GYMNASIUM

CENTRAL COURTYARD; CROSS-WALK IN MIDDLE DISTANCE, EXTERIOR CORRIDORS, RIGHT.

TYPICAL CORRIDOR ALONGSIDE CLASSROOM BUILDING.

1

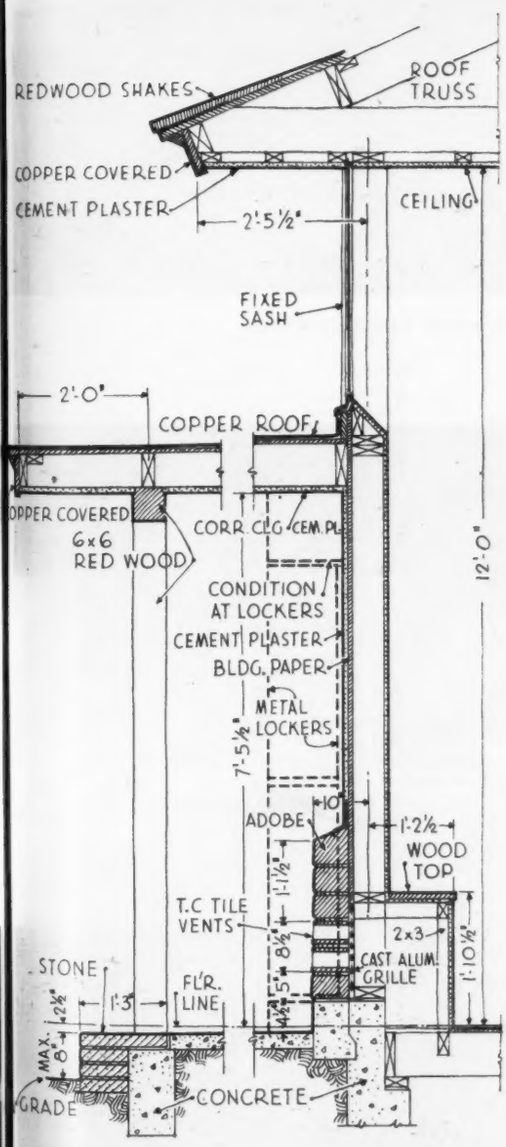
2

3

1. MAIN ENTRANCE; ADMINISTRATION BUILDING, RIGHT.
2. ENTRANCE AT FAR END OF ADMINISTRATION BUILDING.
3. LIBRARY, LEFT; CLASSROOM BUILDING, RIGHT.
4. WINDOW CORRIDOR OF ADMINISTRATION BUILDING.

4

CARMEL HIGH SCHOOL, FRANKLIN & KUMP AND ASSOCIATES, ARCHITECTS



TYPICAL WALL SECTION AT EXTERIOR CORRIDOR

0 1 2 3'

CIRCULATION

The Administration Building, Library, and Classroom Buildings are all interconnected by covered, outside corridors that rim the uphill sides of the buildings; a sheltered crosswalk joins the upper and lower units. Four-foot clerestories above the corridor roofs provide bilateral room lighting; coat lockers are recessed in the corridor walls.

The circulation scheme, worked out to provide comfortable direct passage from building to building, also facilitates separation of individual functions. Library visitors, for instance, need never use the corridors or otherwise conflict with the activities of the classroom units. The Administration Building is located at the entrance, directly accessible to both public and students, with a minimum of cross traffic. For sports events, the public can reach the Gymnasium or the playfields directly, without using any school building for passage.

EXTERIOR FINISH MATERIALS

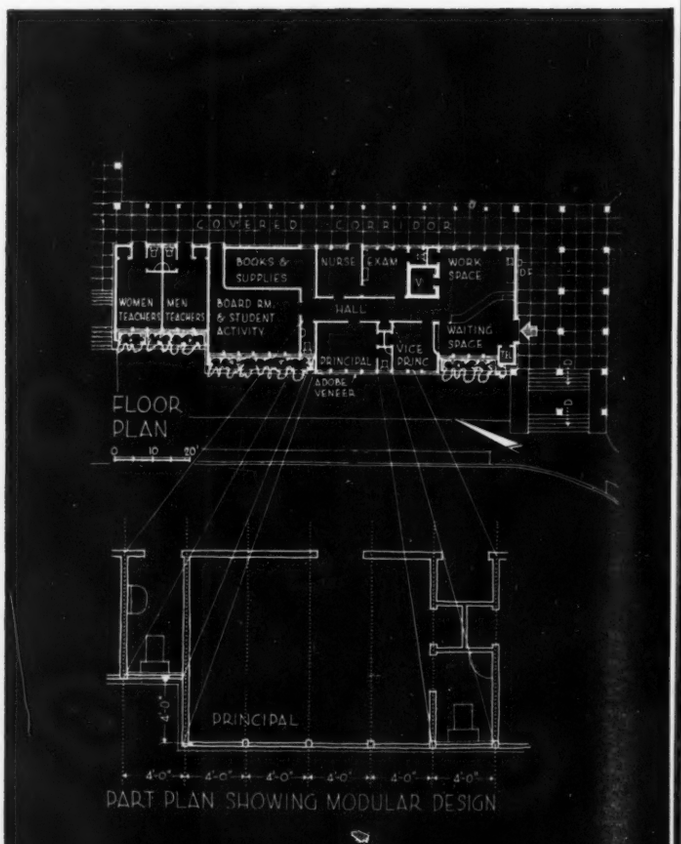
A specialized problem with which the architects coped imaginatively was the requirement that use be made of several locally produced materials—hand-hewn redwood, adobe brick made from clay on the site, and hand-split redwood shakes. Used as incidental members, free-standing supports, trim, or surface finish materials, these local products add richness and variety to the design; yet they in no way affect the highly rationalized structural system that underlies them (see next two pages).

Pitched roofs are surfaced with the redwood shakes; adobe is used as a veneer beneath window bands and for columns bordering the crosswalk; the hand-hewn redwood finds a sensible use in window trim and in the posts and lintels of exterior corridors. Above adobe surfaces, exterior wall finish is unevenly textured cement over metal lath. The corridor roofs are covered with 6-ounce copper roofing.

PLYWOOD-WAINSCOTED LOBBY OF ADMINISTRATION BUILDING; FLOORING IS LINOLEUM.

STRUCTURAL SYSTEM

The various handicraft finish materials produce a surface which apparently belies the structural logic. The structural system of the entire Carmel plant is as rationalized as an airplane fuselage; the finishes are simply veneers, weather barriers. A 4-foot module made possible economical repetition of standardized framing units. A standard truss, with a few variations for special conditions, permitted prefabrication and sped construction.



PART PLAN SHOWING MODULAR DESIGN

CARMEL HIGH SCHOOL,
FRANKLIN & KUMP AND ASSOCIATES, ARCHITECTS

ADMINISTRATION BUILDING

The Administration Building, one of the units built under the first contract (1939), is at the school's main entrance, convenient equally to students and to parents or visitors. Administrative and student-health offices are entered from the main lobby and waiting room.

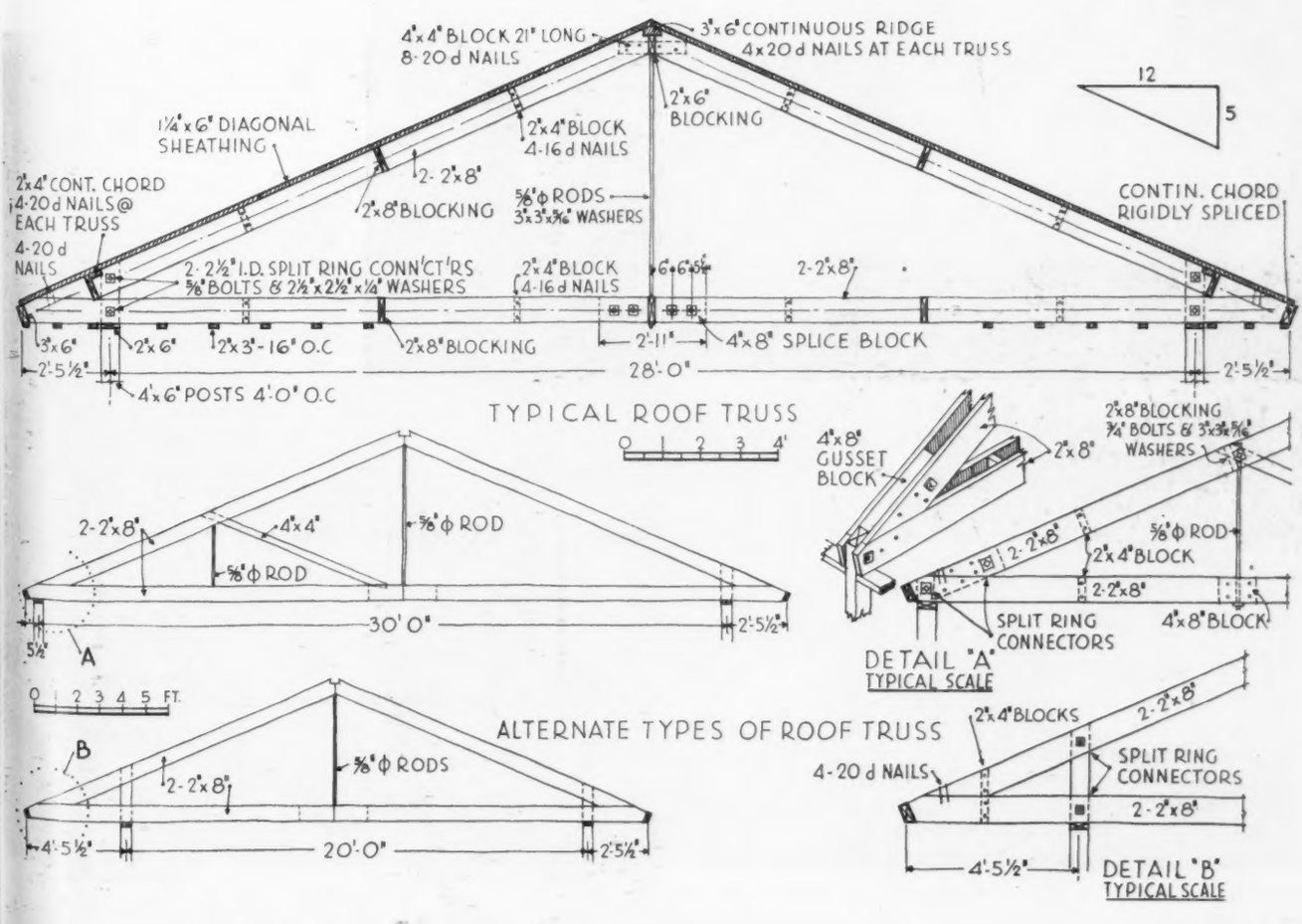
As with all the buildings in the group, the Administration Building has a concrete foundation, with a wood frame laid out on a 4-foot modular unit basis. Framing posts are placed on 4-foot centers; most setbacks are exactly 4 feet or multiples thereof. Windows are steel sash of the out-projecting type; trim and sills are of the locally produced hand-hewn redwood.

Interior finishes are plywood wainscoting, stained, with plaster walls of white Monterey sand finish and acoustical tile ceilings.

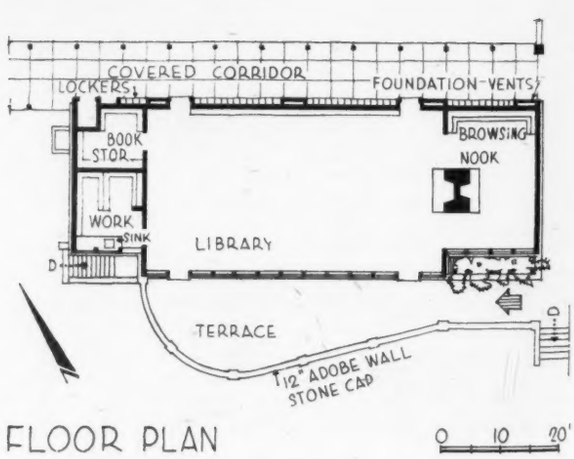
HEATING AND VENTILATING

Heat for this building, the library, the three classroom units, the cafeteria, and the shop is supplied from a boiler room located in the southeast corner of one of the upper classroom buildings. The gymnasium has a separate heating system. The furnaces are tubular, gas-fired boilers operating low-pressure steam systems. Heating units in all smaller rooms—especially in the administrative offices—are wall-type convectors. For the larger classrooms, library, etc., the heating units are thermostatically controlled unit ventilators.

The "ventilating system" throughout the Carmel School is, as the architects point out, "very primitive and foolproof, consisting simply of opening windows."



LIBRARY READING TERRACE.

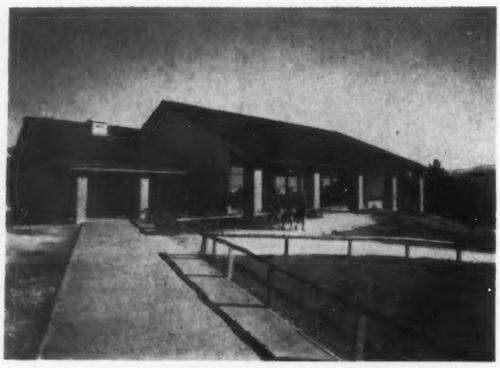


FLOOR PLAN 0 10 20'

LIBRARY

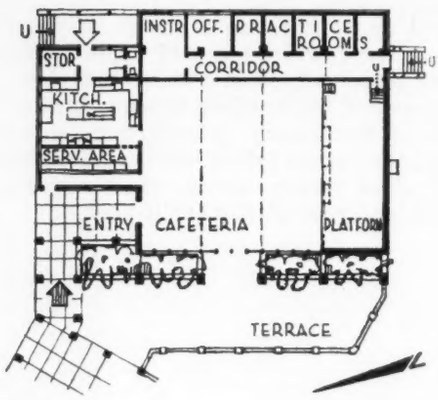
The school library occupies an independent structure with a broad reading terrace on the downhill side, toward the view. Bilaterally lighted like the classrooms (see subsequent pages), the reading rooms have tall windows the full length of the terrace side of the room and 4-foot-high clerestories on the facing wall above the corridor outside. Where the setback occurs on the terrace, a plant trough is introduced, with the greenery backed up by the adobe veneer of the building wall. One of the few instances of applied decoration in the entire school occurs in a bas-relief plaque mounted in the breast of the fireplace which separates the two main areas of the library. Standardized in construction as are all the Carmel schoolbuildings, the library is finished with adobe veneer, cement plaster, redwood trim and lintels, and roof of hand-split shakes.

LIBRARY IN FOREGROUND; CLASSROOM BUILDING BEYOND.

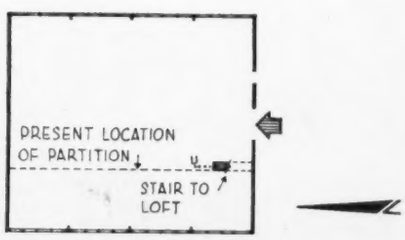


CAFETERIA

Located between the classroom units and the gymnasium, the Cafeteria Building is also used (pending construction of the large theater-auditorium) as the school's theater, music practice room, and social hall. A rigid framing system spans the 59-foot width without the interrupting cross members of conventional truss construction. Interior walls are surfaced with plywood; flooring is maple, and the ceiling is finished with acoustical tile.



FLOOR PLAN 0 10 20 30'



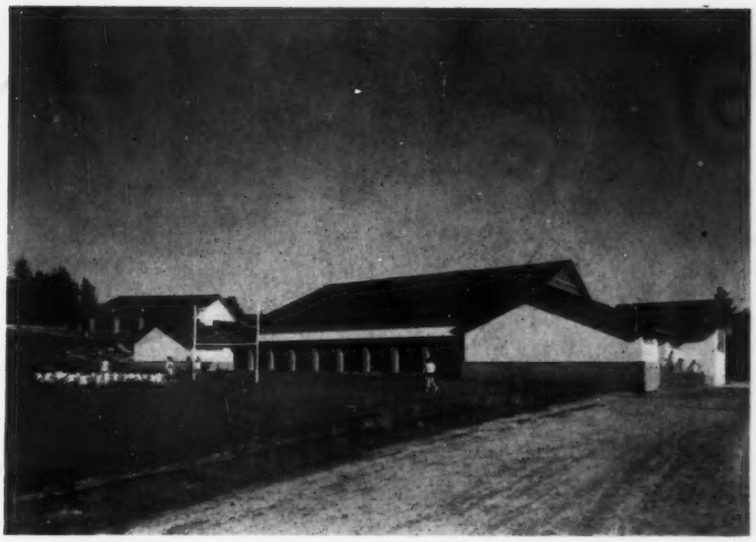
FLOOR PLAN 0 10 20 30'

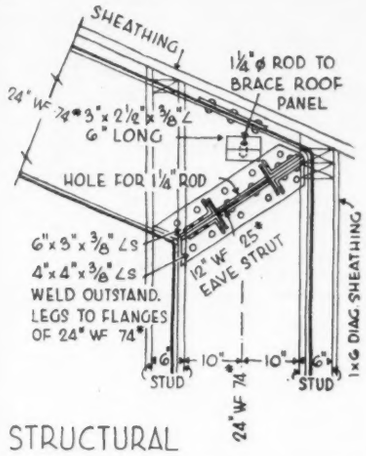
SHOP

Plan flexibility is, perhaps, best illustrated in this rigid-framed shop-building. It houses a single, well lighted space, sufficient in size to accommodate an expanding instruction program. Temporary partitioning is run along one side of the room to form storage rooms and a storage deck above. Next year, some entirely different arrangement may be desired, and the alteration can be made quite independently of the structure. The floor surface is broomed cement; walls and ceiling are the exposed construction; temporary partitioning is of plywood on wood frame.

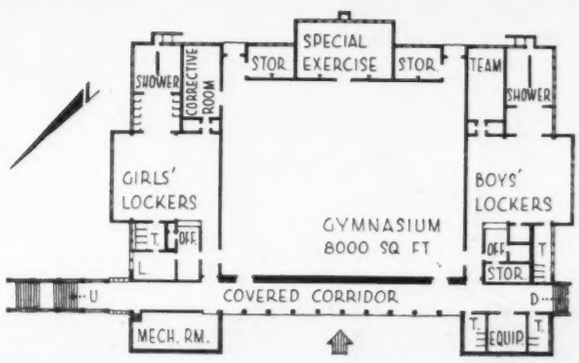
GYMNASIUM

In accordance with the master plan, the gymnasium, Cafeteria Building, and shop were added to the original group in 1941. The gymnasium lies south of the cafeteria, on lower ground bordering the athletic playfield. The main gym room has a maple floor, walls of varnished plywood, and exposed-construction ceiling. The integral wall-and-roof framing (see detail) achieves the broad, clear span with notable economy of materials. Cross-tie rods brace the ceiling construction.



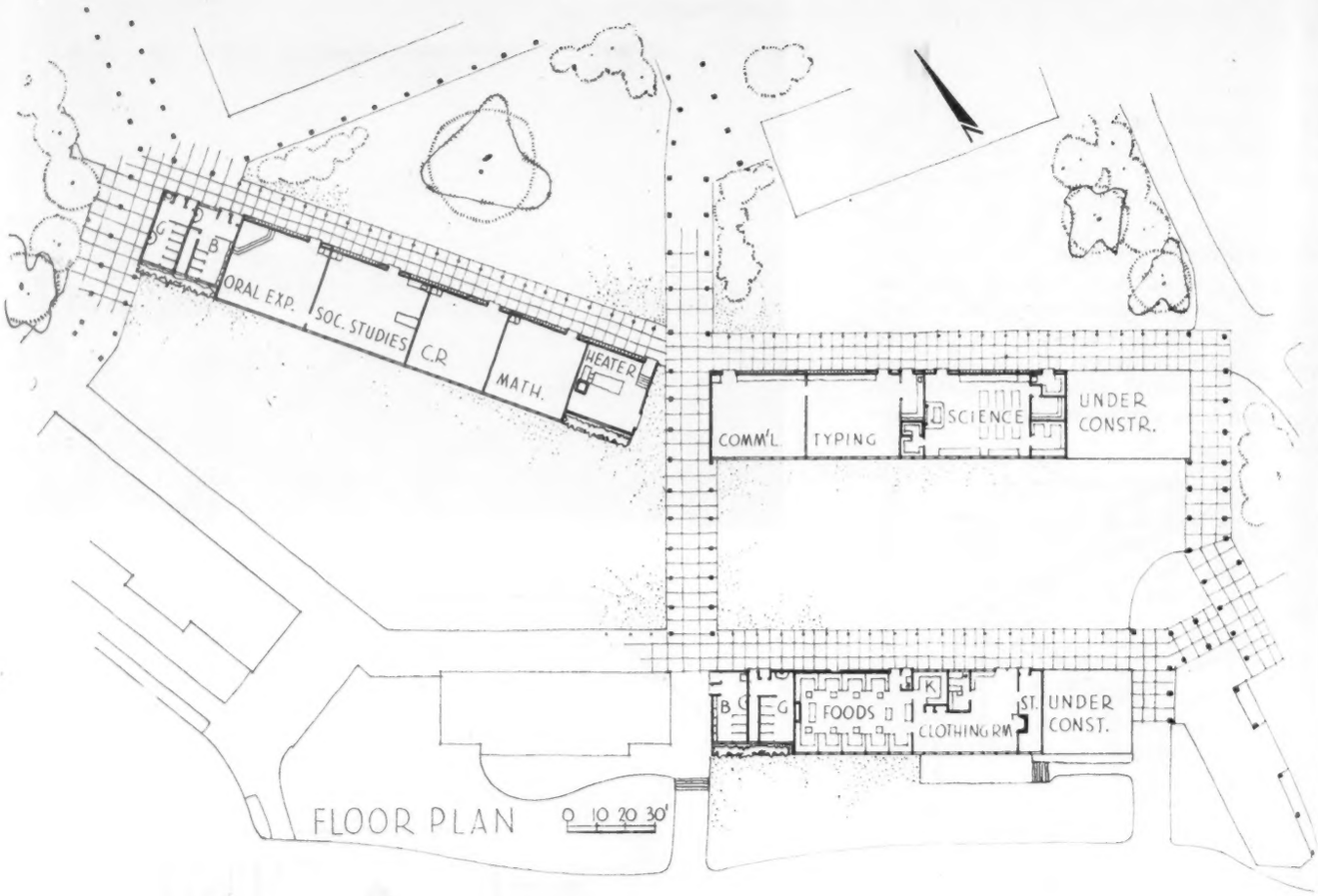

SHEATHING
1¼"ø ROD TO BRACE ROOF PANEL
24" WF 74#
3" x 2½" x ⅜" ∠ 6" LONG
HOLE FOR 1¼" ROD
6" x 3" x ⅜" ∠s
4" x 4" x ⅜" ∠s
WELD OUTSTAND. LEGS TO FLANGES OF 24" WF 74#
12" WF 25# EAVE STRUT
1 x 6 DIAG SHEATHING
STUD
10"
10"
STUD
24" WF 74#

STRUCTURAL DETAIL AT EAVE 0 12"



FLOOR PLAN 0 50'

CARMEL HIGH SCHOOL, FRANKLIN & KUMP AND ASSOCIATES, ARCHITECTS



ORAL EXPRESSION CLASSROOM HAS PORTABLE PLATFORM; MOVABLE SEATING IS CURRENTLY ARRANGED ON THE DIAGONAL.

CLASSROOM BUILDINGS

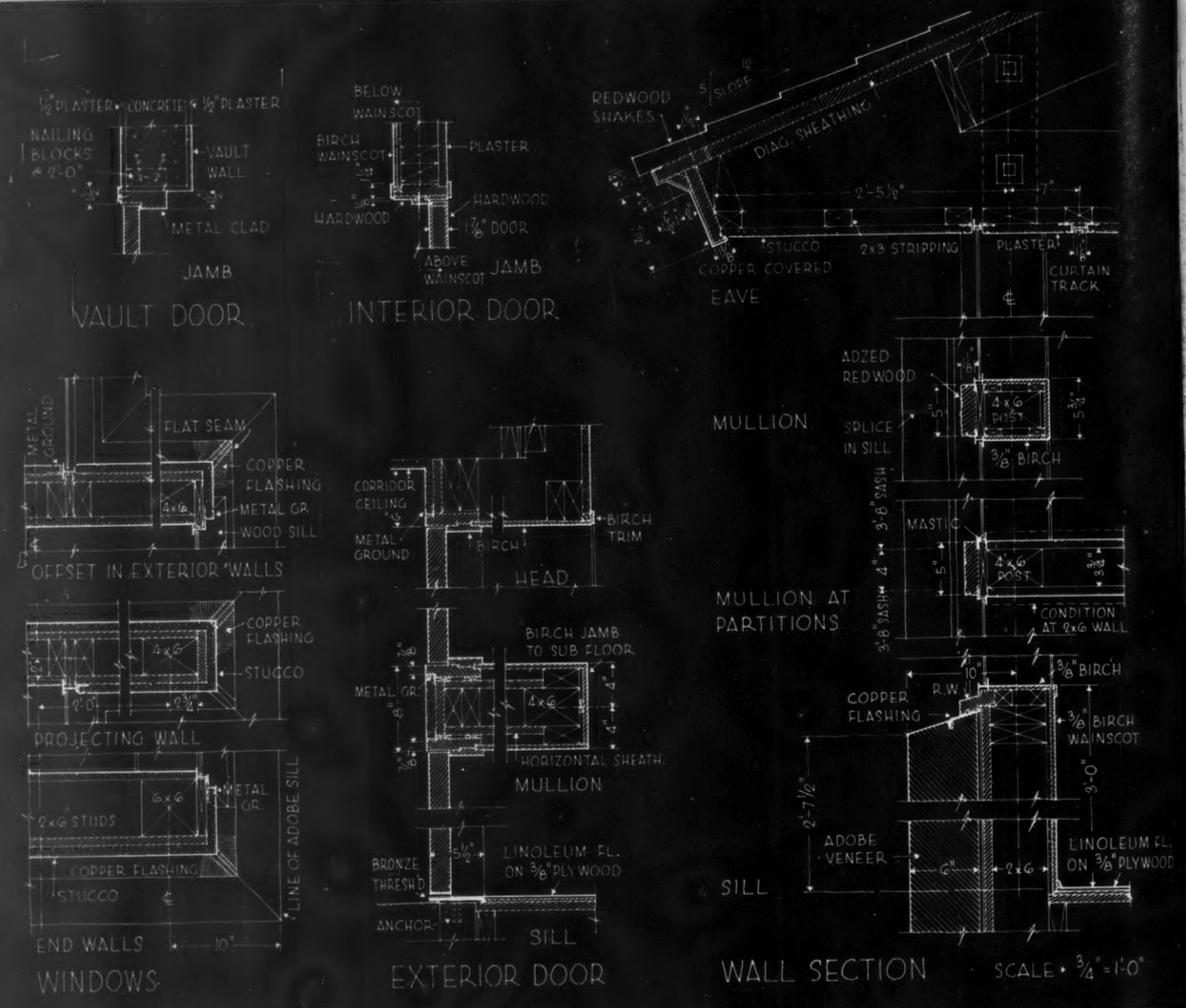
In the classrooms, the nucleus of any successful school design, the planning logic is most successfully expressed. Wall, floor, and ceiling finishes are continuous, and partitions are placed at various multiples of the 4-foot module. To meet changes in educational emphasis or curriculum, partition placement and individual room arrangement may readily be shifted. Bilateral lighting produces an even light throughout the rooms; the large windows reach up to ceiling height and extend from wall to wall. All classrooms are 28 feet wide, allowing greater flexibility for internal, individual arrangement than do rooms of conventional size; storage is accommodated on the window-wall side of the rooms. Above a plywood wainscot are tackboard and blackboard areas, with plaster-finished walls at the top. To facilitate light control, the full-length window walls are equipped with draperies hung to slide on tracks; the density of the curtaining was determined after experimentation to find the weight of fabric which would admit as much light as possible with a minimum of glare.

In the plans of the classroom buildings, it should be noted that all rooms have nearly the same exposure and that the three buildings house separate branches of education. There is nothing remotely "picture-book" about these efficient classroom interiors. Instead, there is space and light, room for—and intention to—change, and a clean, dignified background for learning.

Top photo, chemistry laboratory; lower, domestic science room. In all classrooms, furnishings—which are more important to the individual class than the sheltering structure —can be shifted as the teaching program indicates. Partitions can be relocated when the need arises without destroying the structure.

Selected Details . . .

Structural Data, Carmel High School
. . . . . Franklin & Kump and Associates, Architects



Roger Sturtevant

Perspectives

He Sees Farther Through a Sieve than Most: Ernest Joseph Kump

The Department of Architecture of the University of California is one of the oldest in the country. And in its long and varied history there is no record of a finer organized or more efficiently functioning corps of "niggers" than that brought into being to serve Ernie Kump during his student days. Through this unusual organization of faithful workers he tried to realize his first great ambition—to graduate from the course in architecture without once having touched a pencil. Thus were the seeds of Ernest J. Kump and Associates first sown, in assembling a group which afforded outlet for Ernie's boundless energy and enthusiasm and his genius for organization. It was no mean accomplishment, this keeping 10 or so young men of university age and youthful interests at a constant pitch of high productivity and accomplishment.

After receiving a bachelor's degree at California in 1932 Ernie decided to move his organization eastward and take over the Eastern Seaboard. Harvard was selected as the theater of operations. History repeated itself with minor variations, and Ernie completed his conquest of that institution in 1934, the terms of surrender being a master's degree.

While at Harvard his espousal of the cause of modern architecture marked him as an advanced thinker, even at times as a rebel if the situation demanded it. On one occasion Ernie sought to advance the general understanding of modern architecture by giving a lecture to the assembled students of architecture and their friends. Plenty of well-designed posters, conspicuously placed, announced the auspicious occasion and brought together quite a sizable crowd. Just before the lecture was scheduled to begin, Ernie (unseen by the assembled multitude) peered into the Assembly Hall and was awed by the success of the venture up to that time. Somewhat abashed, yet determined to see the thing through to a successful conclusion, Ernie thoughtfully regarded his inadequate sartorial equipment, and then went into action. He quickly visited the public cloakroom, picked with great care the most sumptuous overcoat (with a fur collar), a superb derby hat, cane, gloves, and whatever else appropriate he could lay his hands on. (At Harvard there was no dearth of such material in those days.)

His entrance into the Hall was truly magnificent; he took off his borrowed outer paraphernalia with impressive dignity, and with the help of an enlisted assistant who quickly and discreetly returned all of the apparel to its original location he proceeded to the business at hand. The lecture itself was given with seriousness and competence, and was received with the serious appreciation it deserved.

Testifying to both his fine business sense and his preoccupation with the problem of integrating the machine with the good life was his experience in returning to the West Coast after completing his studies at Harvard. He and another classmate, Johnny Evans, purchased a Ford of uncertain year and model for $10.00 and with consummate legal acumen (the previous owner had lost all proof of ownership and registration) succeeded in having it registered, all in due order. They set out bravely for California. On the way they stopped off at Daytona Beach, Florida, for a speed trial. Johnny did the driving during the test run, while Ernie perched precariously on the fender, making on the fly such mechanical adjustments as would ensure the maximum efficiency of the power plant. They were clocked at 28 miles per hour. Well satisfied, they continued back to California, playing cards most of the time to while away the hours while they were crossing the vast empty spaces of the Southwest. On reaching California the car was sold for $25.00.

These anecdotes, I hope, convey something of the zest for life, the good humor, the energy, enthusiasm, and love of unconventional horseplay which are still so characteristic of Ernie Kump. Ernie is an animated, entertaining, convincing conversationalist, and is at his best with friends at the coffee-and-cigarette stage of a good meal. Conversationally he can carry the ball and run to a touchdown in either direction. *(Ed. note: The author did not insert the word "simultaneously.")* His explosive energy and infectious good humor are in such abundant supply that there always seems to be more than enough to go around, to raise the general level of sparkle and life in any gathering where he is present. He is an admitted bon vivant, a keen student of history and current affairs, and has a deep interest in the world of music. All this, however, does little to assess the seri-

ous side of his nature, an understanding of which is necessary for an insight into his professional philosophy and his architectural work.

Ernie Kump is only 33 years old, yet the volume of his work is considerable. All of it, even from the beginning of his practice, has given evidence of conviction, of a singleness of purpose, and of a sureness of the means that invest every one of his designs with distinction. He has complete contempt for any temporizing or sacrifice of principle. His every working hour is a passionate pursuit of perfection which will permit no single stud to be out of place in an over-all structural scheme even though covered and invisible in the final work. Something about his work that is not apparent to any but the close, careful analyst is the immediate relationship of the structural system and the architectural design. My statement implies that the two are considered separately, but they are not; they are parts of a unified whole. In Kump's philosophy the structural system must share the distinction of the "architecture." There is to him no such thing as a consideration for superficial appearance; everything must have an integral meaning. To Kump, any project from a chicken house to a city hall is worthy of his best, and each thereby gains in dignity. I have seen designs in the office, at the stage when working drawings were nearly complete, discarded, thrown away, done over, and improved—all at no extra charge.

He believes that architecture must begin in its relationship to the region. He believes too that it is for everyone to enjoy, use, and understand; not for just the esoteric few. His avowed specialty is educational structures; he is not the least ashamed, but proud, to be such a specialist. He wants to put within the reach of every school child and every school board, no matter how low the tax base of their community, the very best school plant that can be had; the dignity and importance of the school child are of paramount consideration. Architecture and architects, Kump believes, have a major role to play in the unfolding of America's tomorrow.

Kump, whose father, the late Ernest J. Kump, was also an architect, started in practice in 1935 in Fresno, California, with Charles H. Franklin, under the firm name of Franklin & Kump. Although schools were their specialty, they found time to stray afield here and there and produce such buildings as the Sill office building in Bakersfield and Fresno's City Hall. Franklin left the firm in 1942 to become a Major in the Army Engineer Corps. Shortly afterward, Kump and Mark M. Falk, an engineer with a rare gift of creative ability, formed a partnership and together provide the leadership of Ernest J. Kump and Associates, under which name the practice is conducted today. One of the most significant of Kump's recent contributions is the development for prefabrication of a school building unit using the limited list of materials available for wartime use. Many of these prefab schools have been built recently in California.

Last year the Museum of Modern Art selected the Acalanes Union High School and the Fresno City Hall, both the work of the firm of Franklin & Kump, for inclusion in its exhibition of the best contemporary American architecture of the last decade. The exhibit has gone on tour throughout the United States; and, as part of an Office of War Information project for informing the rest of the world on American cultural development, it has been widely circulated in various countries. A copy of a movie film depicting the design and construction of the Acalanes school is being exhibited in Central and South America as part of the "Good Neighbor" program. More recently, Ernie has been consulted by the British Planning Mission to North America on England's postwar school building program; and, together with Mark Falk, he has received the U. S. Navy's Meritorious Civilian Service Emblem for the design and construction of Navy work involving over $35,000,000.00.

Kump is a member of the American Institute of Architects, the State Association of California Architects, and the National Advisory Council on School Building Problems of the U. S. Office of Education. He holds several patents on structural systems and building devices.

A visit to the Kump home today would complete your acquaintance with Ernie. A charming wife, Jo, and two sprightly children, a boy and a girl, Peter and Mondi, would put you at your ease; while Ernie, resplendent in a tall white chef's hat, would officiate at the open air grate, putting the deft Kump touch on some delectable dish (ration points permitting) with one hand and shaking up some spirituous encouragement with the other. I told you that Kump had a genius for organizing; the preparation and brainwork behind the repast are those of his wife; the final flourish is Ernie's; the result is a complete integration of hospitality and enjoyment.

—JOHN LYON REID

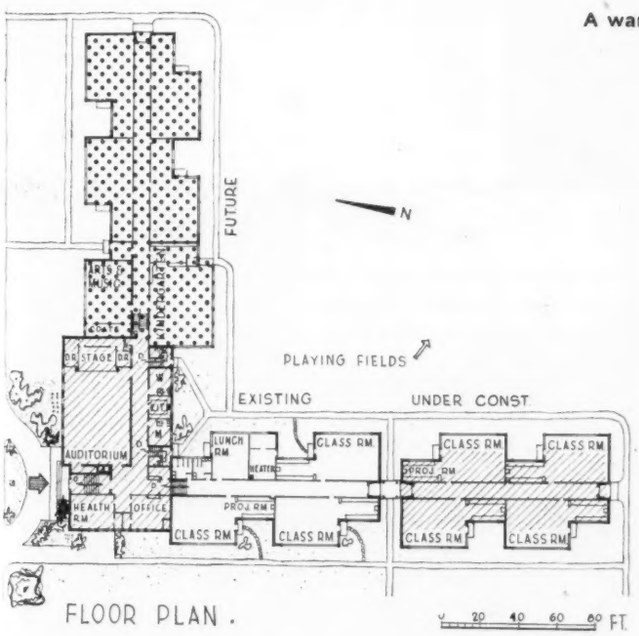
Editor's Note—Lest any reader mistakenly regard the perspective above as output from some Ivory Tower, we have the author's word that "it was put together under the most hectic circumstances. . . . I wrote it on trains, in waiting rooms, on street cars, and in restaurants, and I haven't had a chance to go at it in the spirit of quiet contemplation which is always necessary to the production of great literary achievements! I sincerely hope that this is what you want." (Here, an emphatic "yes.") ***C. M.***

SUNNYLEA SCHOOL

Etobicoke, Ontario

JOHN BURNET PARKIN, A.R.I.B.A., ARCHITECT

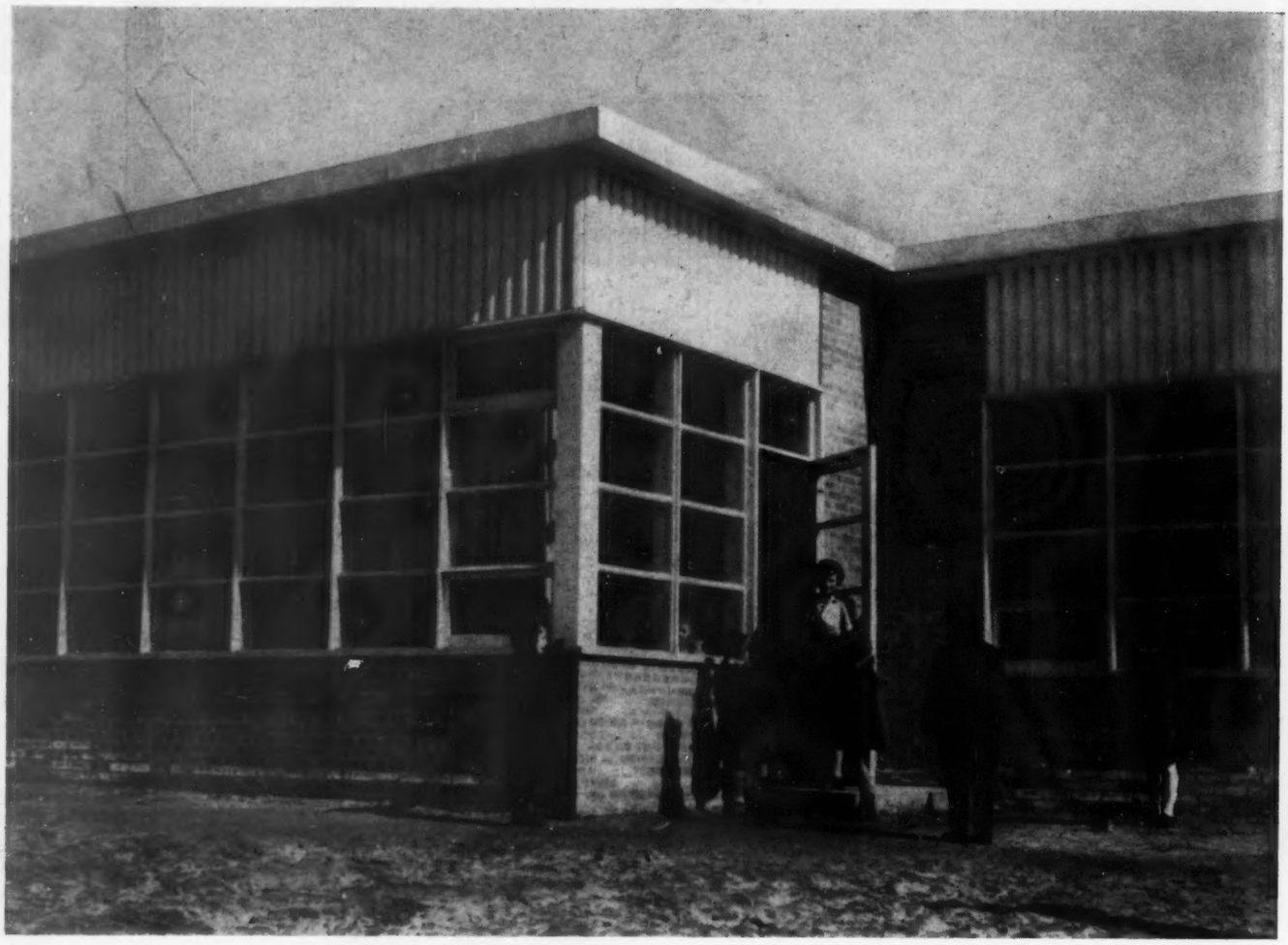
A wartime school, small in scale, a friendly environment for children.

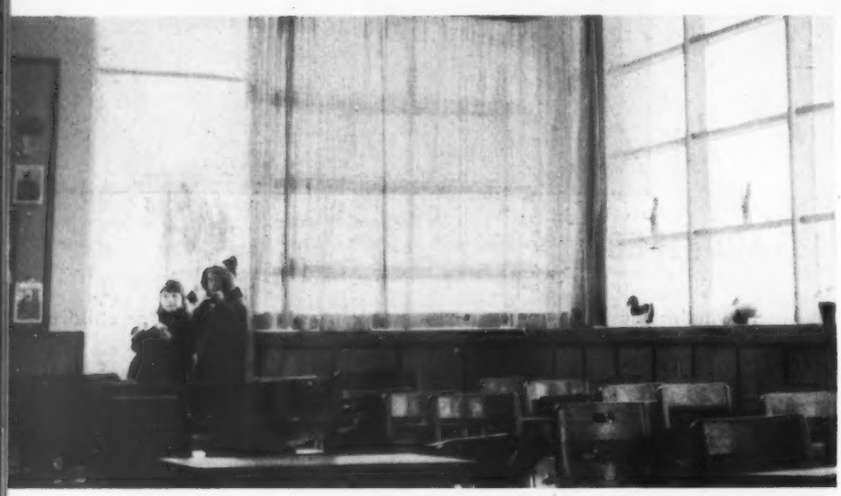


FLOOR PLAN.

Of a size that would meet the needs of many small towns in the United States, this pleasant little Canadian school—the first stage of a larger development—has much to recommend it. Possibly at the top of the list is the obvious and heart-warming regard that the architect has for the people—the children—who will use it.

There is an unpretentiousness to the whole that invites rather than awes the curious, childish mind seeking security along with knowledge. The scale is modest, and the low shelving and cabinets and great sunny windows combine to form a friendly, informal environment





Each classroom unit has a private exit to a separate play yard, a factor with both curricular and fire-safety advantages. The great corner window floods each room with daylight.

for the young. The initial four-room section (with one of the rooms temporarily put to work as heater space, toilets, and lunch room) establishes the unit pattern for the rest—the large, bright classroom, the separate exit to a private play yard, the fitted project room, including coat closets, work counters, and storage space.

The project room, well schemed as it is here, is still an experimental element in classroom design. Some educators—and some architects—maintain that with increasing informality in educational methods, such a set-apart space is unnecessary; that, in fact, when provided, it is used more often for storage than for projects; that a larger classroom space that can readily be rearranged is more flexible and satisfactory.

War limitations resulted in structural ingenuity. Lacking steel or heavy timber beams, the architect worked out window framing that also serves as structural support. To lighten the load above the windows, vertical wood siding over frame was used in place of masonry.

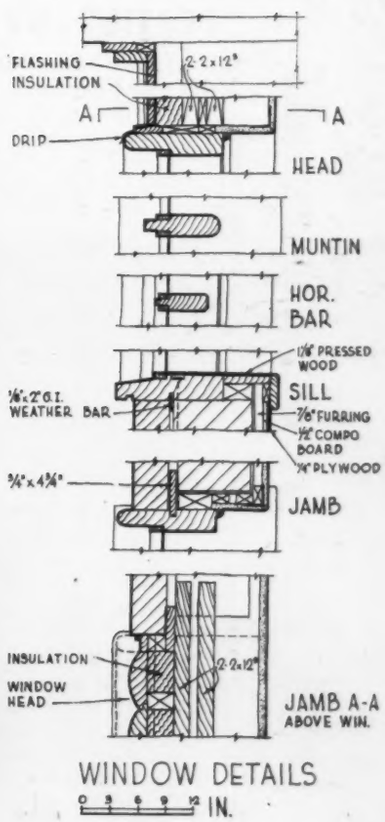
The floor is a concrete slab laid directly on grade and surfaced with asphalt tile, with a continuous heating trench beneath its perimeter. The temporary forced hot-air heating system proved so satisfactory that, the architect tells us, "the floors were not cold even when outside temperatures were -10 degrees, Fahrenheit." This temporary system is now being replaced, however, by a permanent system located (along with permanent toilet rooms) under the new auditorium section.

JOHN BURNET PARKIN, A.R.I.B.A., Architect

Although windows do not extend up to the blackboard wall, flush ceiling lights insure good light where seeing is all-important. Ceiling finish is acoustical tile; concrete floors are asphalt-tile surfaced.

The classroom is exceptionally equipped with tackboard space for informal display of creative work; the well lighted project room off the rear corner provides secluded work space for specialized learning tasks.

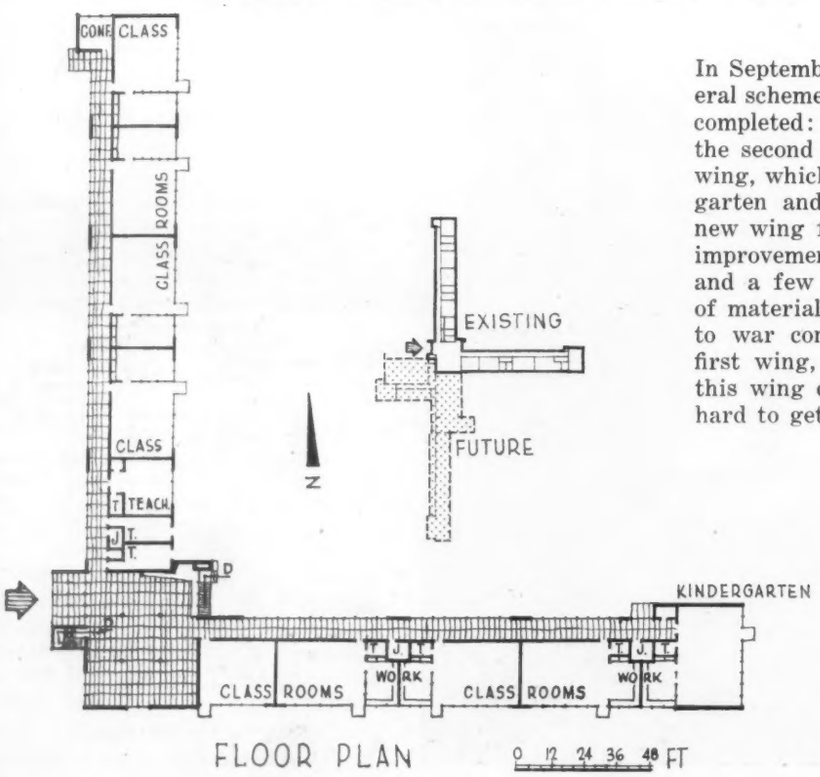
Final judgment pro or con the separate project area awaits further experimentation and analysis.



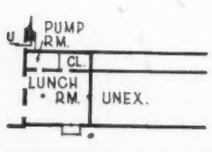
ADDITION TO RUGEN SCHOOL, GLENVIEW, ILL.,

PERKINS, WHEELER & WILL, ARCHITECTS

In September, 1943, PENCIL POINTS presented the general scheme for Rugen School and the first portion to be completed: the North wing. In these pages we show the second stage in the scheme's realization, the East wing, which provides separate facilities for the kindergarten and lower elementary grades. In general the new wing follows the original design closely, although improvements have been made, some errors corrected, and a few changes introduced because a different set of materials had to be employed in some instances due to war conditions. When construction began on the first wing, steel and other metals were short. When this wing came to be built, metal was available, wood hard to get.



FLOOR PLAN 0 12 24 36 48 FT

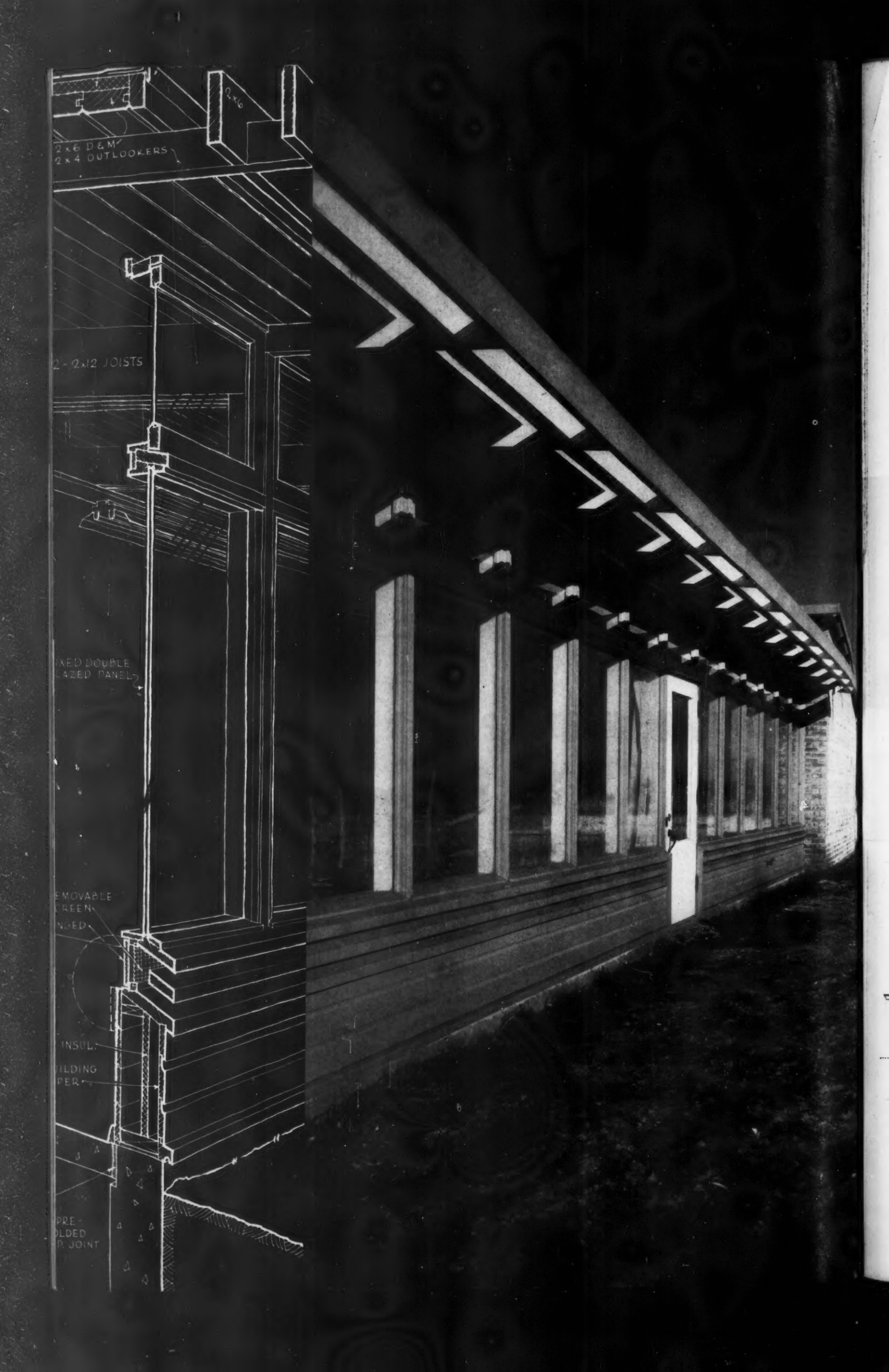


PARTIAL BASEMENT

Photographs by Hedrich-Blessing Studio

FOLLOWS THE MASTER PLAN

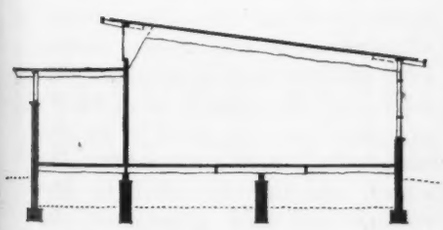
Kindergarten wing, with entrance at end so that younger children playing outdoors will not interfere with other groups.


2x6
2x6 D&M
2x4 OUTLOOKERS
2 - 2x12 JOISTS
XED DOUBLE
LAZED PANEL
EMOVABLE
CREEN
NGED
INSUL.
ILDING
PER
PRE-
OLDED
P. JOINT

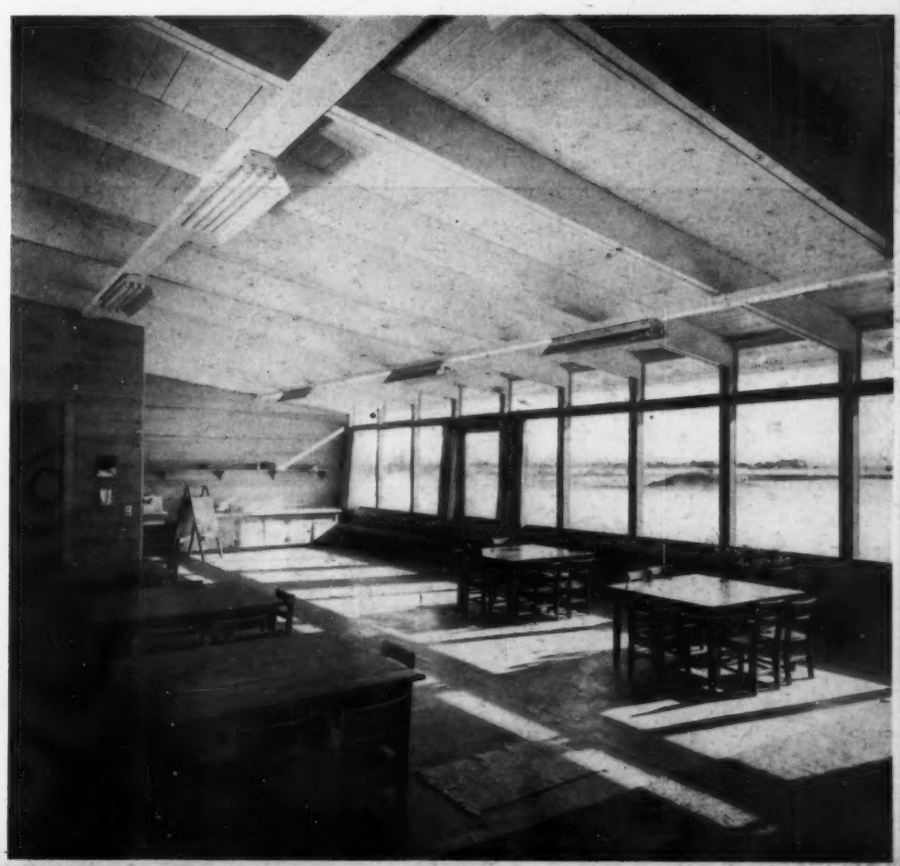
RUGEN SCHOOL ADDITION
PERKINS, WHEELER & WILL
ARCHITECTS

As in the previously constructed portion, classrooms are bilaterally lighted, with one wall of windows which extend up between the roof joists. Other wall, along the enclosed corridor, has clerestory, bottom-hinged lights, with wood fins between to serve the double purpose of stiffening the framing and diffusing the light. All floors are concrete covered with asphalt tile; lighting is fluorescent.

One important change concerned both the floor construction and the heating system. With wood scarce, a concrete floor laid on gravel fill was substituted for the wood used in the first wing. The first intention was to use precast concrete beams and slabs with 2-inch rigid insulation supported by the bottom flanges of the beams; the ducts thus formed were to carry heated air, some of them to heat the floor, some to supply registers in the baseboards. This idea proved too expensive, and yet it was considered desirable to use some form of radiant panel heating. A hot water system was decided on, with heat supplied by a heat exchanger attached to the enlarged boiler. Wrought iron pipe coils are buried in the floor; other coils, over which the wood surfacing is furred out from the studs, comprise the wall panels. Floor panels are designed to function at a maximum of 85° F, wall panels, 130° F. The large windows employ double, insulating glazing units, fixed in their structural frames. For ventilation there are screened louvres below the glazing, with drop doors inside.

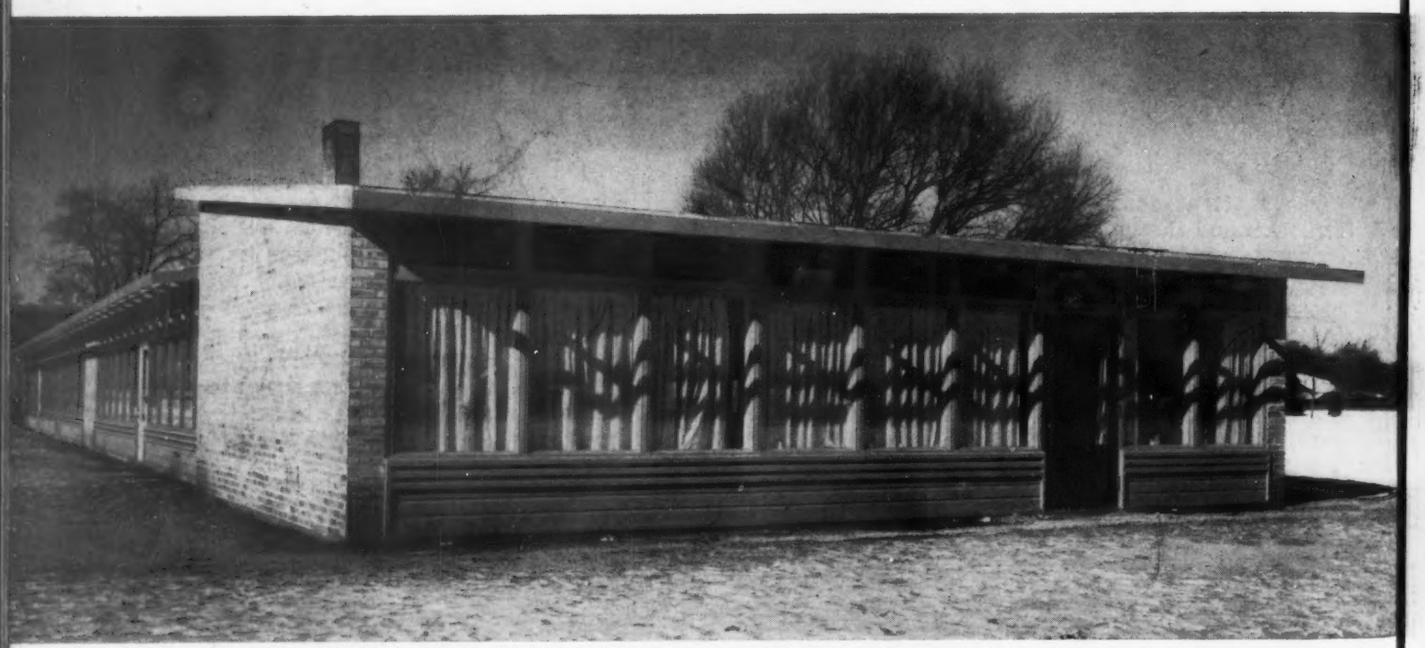


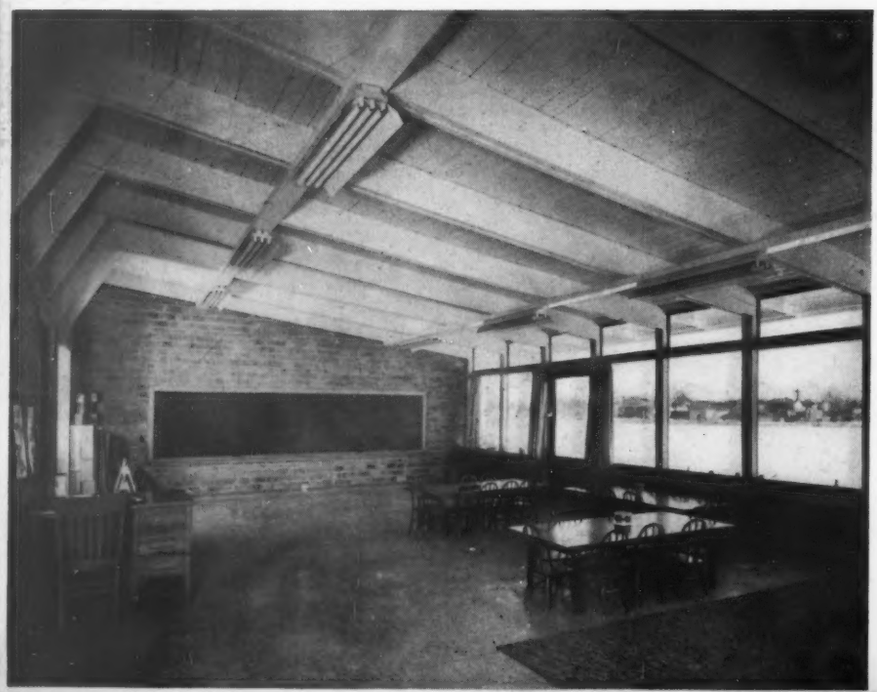
CROSS SECTION
1/16" = 1'-0"



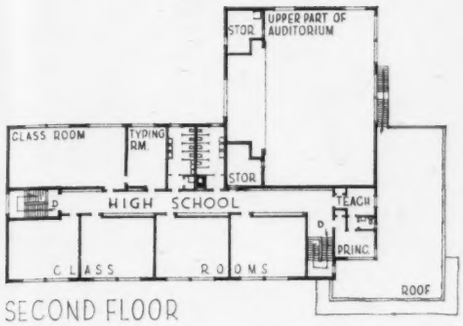
RUGEN SCHOOL ADDITION
PERKINS, WHEELER & WILL
ARCHITECTS

All photos on this page show the kindergarten, a single room with adjoining toilet and work room, and closet conveniently located in the corridor. In the eventual building, according to the original master plan, this wing is to be used for the upper grades; the wing first built, for intermediate grades; and a new South wing will then house lower grades and kindergarten. This program explains why certain facilities (coat alcove, rest space, etc.) are not now provided.

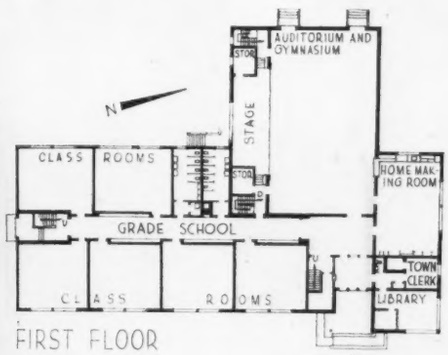




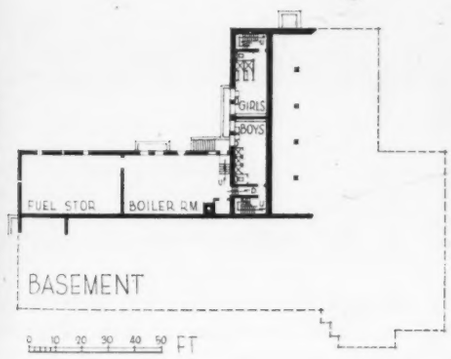
Color plays an important part in Rugen School. Interior walls are the natural color of the materials, wood and reddish-brown exposed brick. Ceilings are clear yellow-white; trim in classrooms varies, with one room red, another yellow, etc. The same trim colors are used on the outside of the classroom doors and under the eaves, serving to identify the rooms and add gayety to the composition.

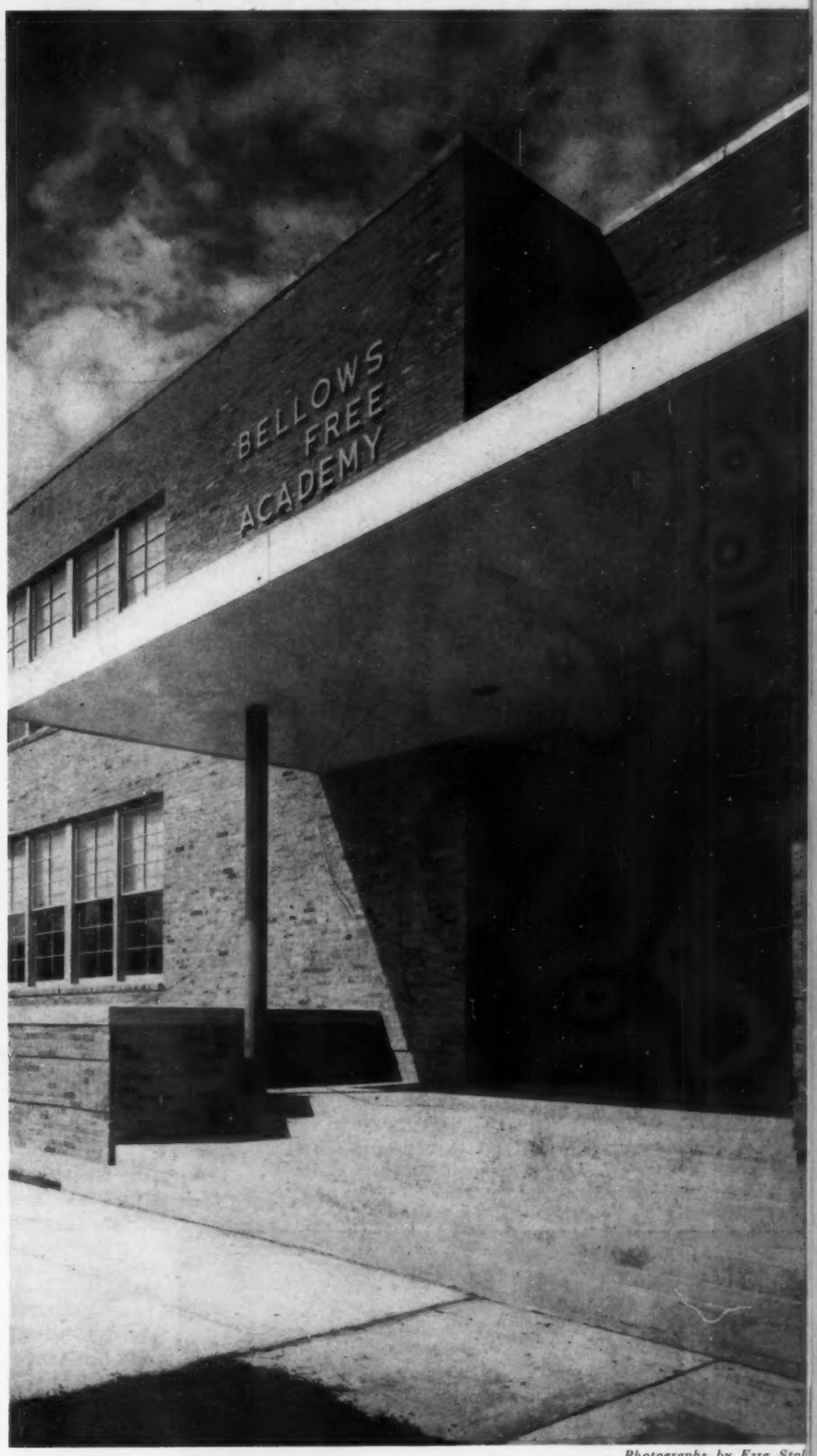


SECOND FLOOR



FIRST FLOOR





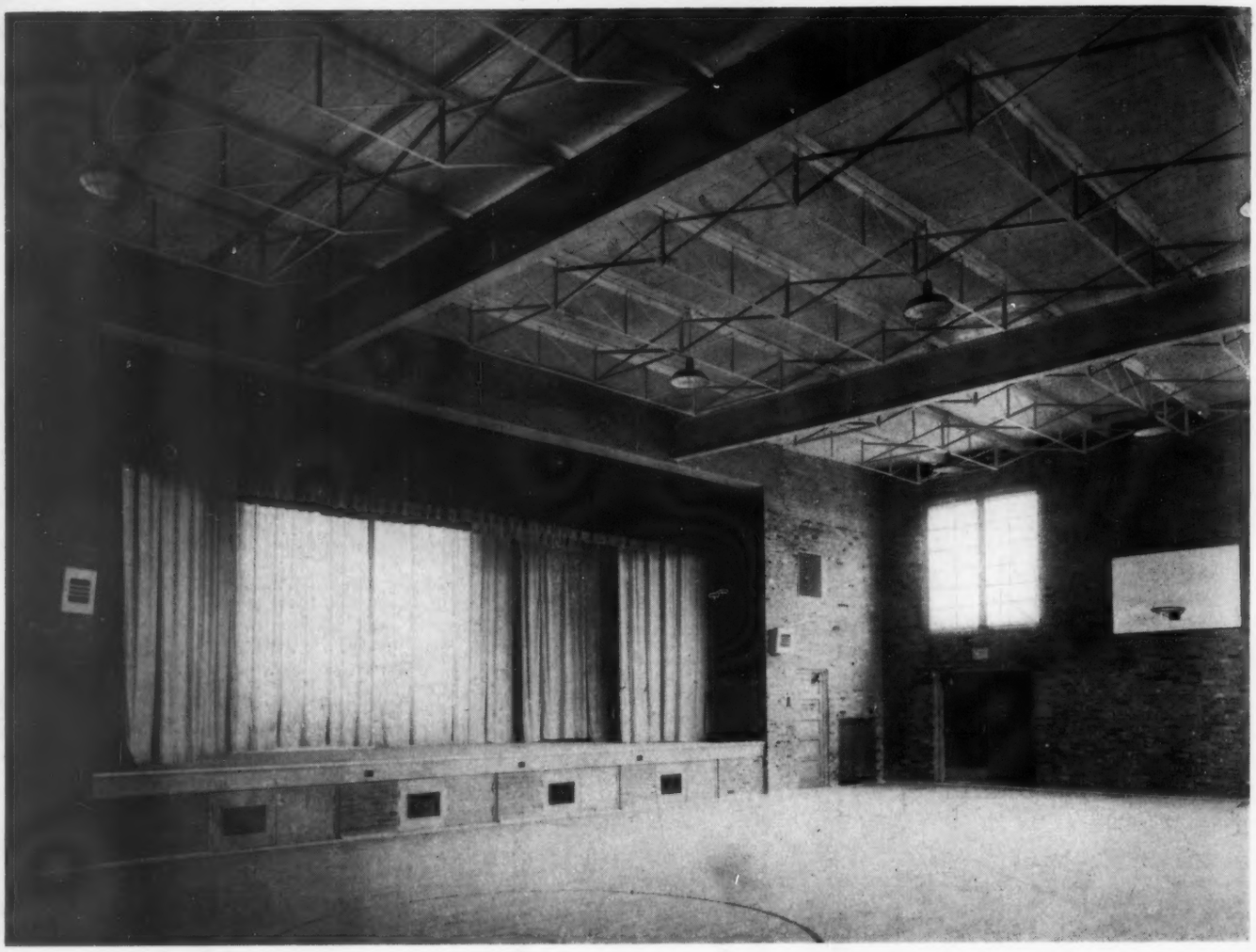
Photographs by Ezra Stol

BELLOWS FREE ACADEMY, Fairfax, Vermont

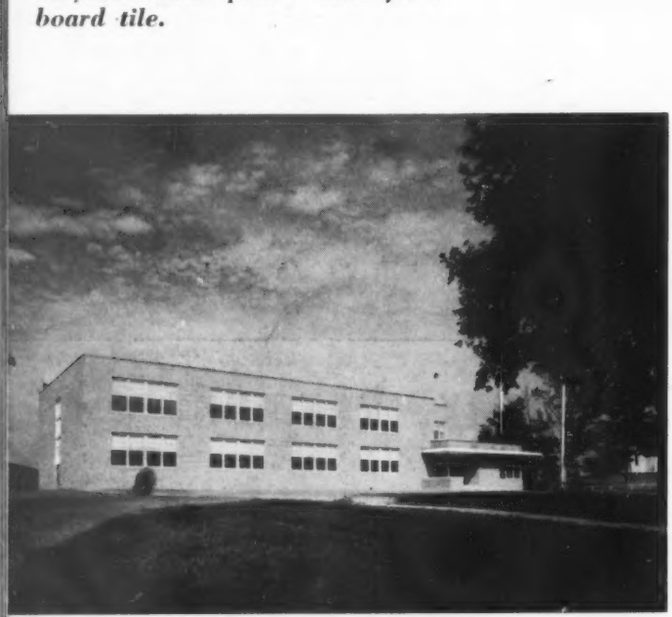
FREEMAN, FRENCH & FREEMAN, ARCHITECTS

In analyzing a building, it is essential to know something of the clients' preferences before a fair judgment can be made of an architect's performance. Similarly, architectural progress considered without regard for regional equations may prove more theoretical than realistic. For Vermont, traditionally not the first by whom the new is tried, this foursquare school—grade school (first floor), high school (second floor), and community center—is an exciting departure from the pedimented portico, the Georgian cupola, and documented escutcheon of rare device. That makes it news, indeed!

While in some respects—general form and amenity of classrooms, degree of flexibility in partitioning, window treatment, etc.—it can hardly take a place among the more advanced developments in school design, in others —integration with the community, for instance—it is



Gymnasium-Auditorium. Roof construction: steel beams, wood joists, sheathing, and tar and gravel. In classrooms, ceilings are surfaced with prime coat fiberboard tile.



Foundations are poured concrete; walls are of brick veneer over 2 by 6-inch studding, except for the auditorium which has solid brick walls.

an extraordinary accomplishment. For not only does the school auditorium serve the community in addition to its curricular functions (a common enough practice), but included in the plan is the town's public library and the office of the town clerk.

Furthermore, within the limited confines (dictated by a limited budget), all elements are so arranged that they can work independently. High and grade school areas are segregated on separate floors; the library and town clerk's office are isolated from the classroom area, and these two rooms, plus the auditorium, may be used without necessarily maintaining the rest of the building.

The home-making room (used by both grade and high school students) is on the first floor, so placed that by means of a sliding panel, one end of it forms a kitchen-cafeteria for serving lunches to pupils from outlying districts. This same arrangement is also used for social gatherings held in the auditorium.

All floors are of wood construction, finished with maple, except in stair halls (where asphalt tile is used) and in the home-making room which has a linoleum floor surface. In the main part of the building, roof surfaces are tar and gravel over sheathed wood joints.

SNOW-FREE DRIVEWAY

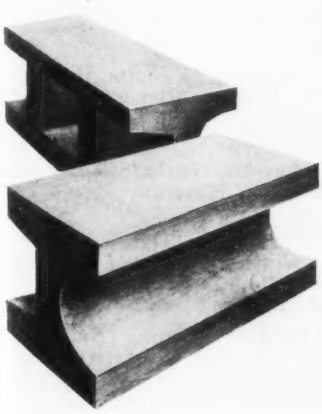
Joseph C. Keaney, a Pittsburgh engineer, gets rid of ice and snow on his driveway by pumping an anti-freeze solution, heated in an instantaneous hot water heater, through iron pipelines laid from garage to street. He claims the system has melted a ½" layer of ice in 20 minutes and removed 15" of snow in 2 hours, at a 60¢ fuel cost, and that the resulting water is also evaporated. Engineers of the A. M. Byers Co., Pittsburgh, Pa., have studied Mr. Keaney's layout and suggest that a similar underground heat line could be operated from a hot water boiler.

AIR CONTROL FOR WELL WATER PUMPS

Manning, Maxwell & Moore, Inc., Bridgeport, Conn., announce a new "Ashcroft Air Control" for controlling air volume in water storage tanks of shallow well pneumatic water systems. The automatic float-controlled valve opens with rising water level, permitting air to flow through the connecting line to the snifter valve on the pump suction; air or water logging of the system is thus automatically prevented.

VERSATILE BUILDING BLOCK

A pre-cast concrete building block (patent pending) for wall core use is the design of Kuhlman Electrical and Manufacturing Co., Bay City, Mich. Its application is varied, since it can be laid with top, bottom, or side out. Arteries of the block can be built in for conduit, insulation, air, and lighting channels; for insulation, chimneys, concealed eaves, etc.

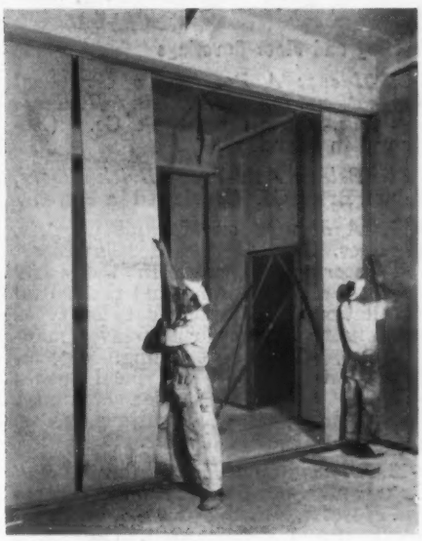


QUIETER FANS

The Herman Nelson Corporation, Moline, Ill., has developed an improved aluminum propeller fan for industrial, commercial, and public applications. Its feature is the "air-foil" profile with the pitch increasing toward the hub, permitting quieter operation, increasing efficiency, and minimizing overloading tendencies. Air turbulence is reduced by backward flanging of the blade's peripheral edge.

HOW TO TREAT FENCE POSTS

Fence posts soaked for 24 hours in a wood preservative solution called "Lauxtol A" are ready for setting as soon as they are dry, according to I. F. Laucks, Inc., Lockport, N. Y. The only catch, they say, is finding an empty open-top steel drum in which to soak the posts.

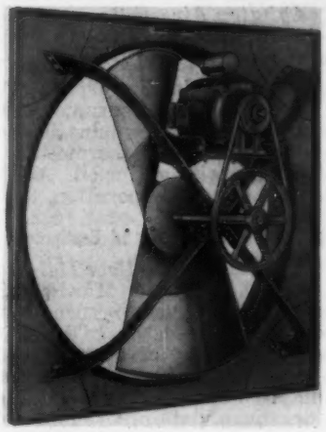


WAR-BORN MATERIALS

A new non-load-bearing partition has survived war tests for quick erection and for durable, non-critical building material. Its manufacturers, United States Gypsum Co., 300 W. Adams St., Chicago, Ill., believe it is the answer to the demand for flexible, low cost, lightweight partitions. The "Rocklath" partition is inserted in floor and ceiling runners, braced for plastering, then plastered on both sides and coated. Partitions are said to be fireproof, verminproof, and will save floor space in erecting closet partitions, and hall and stairway enclosures.

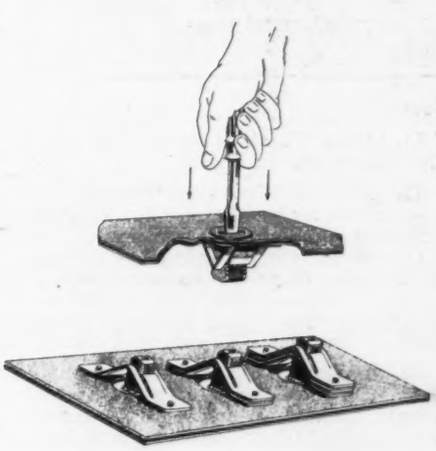
First used by the Navy for applying paint to ships, the "Versatal" air power-operated pump is now available for civilian operation, from Alemite Division of Stewart-Warner Corp., 1826 Diversey Parkway, Chicago, Ill. Under extremes of heat or cold, the pump can dispense and apply paints, sealers, and mastics of heavy or light consistency through several hundred feet of hose—thus making it possible to reach places previously difficult to spray.

Floor areas as large as four football fields and 150-ft. ceilings can now be adequately lighted (directly or indirectly) by a new 3000-watt mercury-vapor lamp manufactured by Westinghouse, 306 4th Ave., Pittsburgh, Pa. The new 5-ft. 3-kw mercury lamp is tubular and delivers 120,000 lumens as against 33,000 for a 1500-watt incandescent. It has been successfully used in Navy blimp hangars, airplane factories, and steel mills.



It has been found that grit, grease, alkalis, and acids can't penetrate a surface covered with "Vinylite" plastic film solution. The Bradley Washfountain Co., N. 22nd St. and W. Michigan Ave., Milwaukee, Wis., is now spraying its marble-and-stone washbowls for industrial plants with a coating of this material. The plastic solution forms a hard surface over the bowls, sealing off pores and crevices, and the surface maintains a permanent luster which simplifies cleaning problems.

Designed to simplify attachment of aircraft cowlings, a lightweight, self-aligning spring fastener is soon to be available for use in attaching inspection plates, heating and ventilating ducts, grain storage bins, portable sheet metal buildings, etc. Its chief advantages are its one stud length (no cross pins) which may be standardized for all purposes, its ability to withstand loads over 900 lbs. and to hold firm under vibration. This development is reported by Glenn L. Martin Co., Baltimore 3, Md.



Manufacturers' Literature

Air Conditioning

1-15. *Agitair Air Filters, Bulletin AF44-1,* Air Devices, Inc. (Reviewed in March.)

1-17. *Year-Round Comfort in Your Home (L-384),* 4-page consumer folder, illustrated. "Airtemp" combination heating and cooling unit, thermostat-controlled, for use with gas or oil. Airtemp Division, Chrysler Corporation.

Airport Building Material and Equipment

1-18. *Airplane Hangar Door Hardware, Catalog A-80,* 40 pages. Hardware for commonly used applications where door rolls on wheels attached to bottom of door and where top of door is guided, but not supported, by the portion of the building across the doorway. Plans, detail drawings, data on: rollers, roller and band brakes, top guides, bumpers, stops, bolts, pulls, towing eyes. Richards-Wilcox Manufacturing Co.

Color Values in Vision

3-25. *Protective Coloration (P1681),* L. Sonneborn Sons, Inc. (Reviewed in March.)

Communication Systems

3-29. *Auth Hospital Signaling Systems, No. 100,* 6-page illustrated booklet. Information on: nurses' calling and signal stations, return call signal systems, doctors' paging and doctors' and staff register systems, 2-way electronic voice communication, etc. Auth Electrical Specialty Co.

Concrete

3-26. *Specification Sheet 63-C, A.I.A. File 4-E-26,* Bethlehem Steel Co. (Reviewed in March.)

3-21. *Mo-Sai, An Improved Modern Masonry Material,* 12-page booklet on a "refined type of architectural concrete of high compression, low absorption, extreme density and lightness of weight," which makes possible decorative and colorful surface textures. Method of manufacture, advantages, characteristics, uses. Details, photos, specifications. Dextone Co.

3-27. *Richmond Tyscru-Tyloop Tying Systems for Concrete Construction, Bulletin No. 1,* Richmond Screw Anchor Co., Inc. (Reviewed in March.)

NOTICE: Copies of *Modern Developments in Reinforced Concrete (No. 10)* and *(No. 11),* Portland Cement Association, are *no longer available* because of paper restrictions.

Doors

4-14. *Data Sheet (15/40),* The Bilco Co. (Reviewed in March.)

4-19. *How to Plan Your Garage,* 18-page consumer booklet (6 x 9). Suggests practical solutions for combining car and storage space, and for driveway difficulties; types of "upward-acting" garage doors—single and multiple—and accessories. Detail drawings, plans, photos, diagrams. Crawford Door Co.

4-20. *Ellison Balanced Door Units,* 10-page illustrated booklet. Prefabricated, bronze, standard, or specially designed door units (door, frame, threshold, weatherstrip, operating mechanism, hardware) for buildings of all kinds. Installation photos, construction details, specifications. Ellison Bronze Co., Inc.

Drafting Room Equipment

4-15. *2-Way Reproduction Advantages (A-1004),* Charles Bruning Co., Inc. (Reviewed in March.)

4-16. 3 data sheets, Engineering Manufacturing Co. (Reviewed in March.)

4-17. *How to Reduce Costly Manual Drawing and Copying,* Remington Rand, Inc. (Reviewed in March.)

4-18. *Detail (Graph-Type) Engineers Glass,* Universal Engraving and Colorplate Co., Inc. (Reviewed in March.)

Electrical Equipment

5-09. *Square D Digest No. 129,* 76-page catalog. General information on safety switches, service equipment, multibreakers, other circuit breakers, panelboards, bus and feeder duct, motor control and pressure switches, etc. Application data, illustrations, prices. Square D Co.

Flooring and Floor Coverings

6-13. *Ideas: A Portfolio of Practical Suggestions for Modernizing Business Interiors,* Armstrong Cork Co. (Reviewed in March.)

6-14. *Belden Acid-Proof Brick Floors,* Belden Brick Co. (Reviewed in March.)

6-18. *A Manual on Mohawk Carpets,* 24 pages. Indexed guide for "architect and interior decorator in the early planning of commercial and residential installations." Technical data on types and construction of carpet weaves, manufacture, dyeing, designing. Recommendations for use in typical spaces and for various types of buildings. Photos, drawings, specifications, tables. Mohawk Carpet Mills, Inc.

6-15. *Informational Kit Containing Full Data and Specifications on Terrazzo and Mosaics, A.I.A. File 23-E,* National Terrazzo and Mosaic Assn. (Reviewed in March.)

6-16. *No-Slip Floor and Deck Covering, File 38-H or 25-G,* Truscon Laboratories, Inc. (Reviewed in March.)

Glass

7-08. *Blue Ridge Aklo Glass,* Blue Ridge Sales Division of Libbey-Owens-Ford Glass Co. (Reviewed in March.)

7-12. *Solar Houses, An Architectural Lift in Living (SH-1),* 24-page consumer booklet (8¼x10¼). History of the solar house and description of "Thermopane" windowpane insulation; plans, drawings, suggested plans; photos of houses designed by Neutra, Keck, Deknatel, and others. Libbey-Owens-Ford Glass Co.

7-09. *Glass Block in Hospitals (1B-54-442),* Owens-Illinois Glass Co. (Reviewed in March.)

Glazing Equipment

7-13. *Modern Glazing with Truscon Tite-Lite (Bulletin 558), A.I.A. File 26-B-2,* Truscon Laboratories, Inc. (Reviewed in March.)

Glues

7-14. *Wood Bonding with Bakelite Urea Resin Glues (No. 5849),* 12-page booklet defining resin glues, listing present and possible future uses, properties. Photos, drawings. Bakelite Corporation.

7-10. *The Influence of Modern Glues on the Utilization of Wood,* Casein Co. of America. (Reviewed in March.)

Gypsum and Gypsum Products

7-11. *The Complete Guide for Use and Application of Celo-Rok Gypsum Products,* Celotex Corporation. (Reviewed in March.)

7-15. *Certain-teed Gypsteel Plank 3/29,* 8 pages. Pre-cast gypsum units, used like lumber, for fireproof roof decks and structural floors. Uses, specifications, details. Certain-teed Products Corporation.

7-16. *T & G Partition Panels (1686),* 8-page booklet, illustrated. Specifications and construction details on "Gold Bond" solid gypsum partition panels for rapid erection. Standard and barrier types; millwork details; flat wall treatments. National Gypsum Co.

Heating

8-39. *"DL" Automatic Controls and Accessories (Catalog 100B), Detroit* Lubricator Co. (Reviewed in March.)

8-40. *Bulletin No. 1213, O & S Powermaster,* Orr & Sembower, Inc. (Reviewed in March.)

8-41. *Winkler Fully Automatic Stokers,* U. S. Machine Corporation. (Reviewed in March.)

Incinerators

9-18. *Goder "Disposall" No. 3 (Bulletin H-20),* Joseph Goder Incinerators. (Reviewed in March.)

Insulation

9-23. *New Beauty in Modern Interiors (No. 90),* 28-page consumer booklet. Photos of installations where "Insulite" insulation board is used. Product description; methods of application; designs; diagrams; details. Insulite Division of Minnesota & Ontario Paper Co.

9-20. *Fiberglas Insulations for Industry,* Owens-Corning Fiberglas Corporation. (Reviewed in March.)

9-21. *Zonolite Concrete, A.I.A. File 4-E-G-K,* Universal Zonolite Insulation Co. (Reviewed in March.)

9-22. *File A.I.A. 37, Application Data Sheets,* Balsam-Wood Sealed Insulation, Wood Conversion Co. (Reviewed in March.)

12-16. *Haskelite ld/1,* 8-page booklet. Laminated products of wood, paper, fabrics, steel, aluminum, plastics—their use as panels, etc. Data, illustrations, tables. Haskelite Manufacturing Corporation.

Lighting

12-14. *Lighting to Invite More Customers to Postwar Department Stores,* General Electric Co., Lamp Dept. (Reviewed in March.)

12-15. *Lumitile Installation,* Lumitile. (Reviewed in March.)

Maintenance

13-09. *Elastigum Liquid and Plastic (Form 771),* Barrett Division. (Reviewed in March.)

13-10. *Vacuum Cleaning (Bulletin 131),* 8 pages. General information on stationary vacuum cleaning for residential and industrial buildings. Special data

on swimming pool, boiler, and dry mop cleaning, vacuum tools and hose. Drawings, photos, details. Spencer Turbine Co.

Paint

16-30. *Everjet Elastic Paint (774)*, illustrated folder. Uses and applications of "Everjet," coal-tar pitch-base paint for protecting metal and wood against corrosion and decay. Barrett Division.

16-31. *Eagle White Lead Condensed Painting Guide (No. A171)*, 12 pages, illustrated. Manual of technical data and recommendations for paint applications: basic formulas, surface preparation, coats required, precautions in modifying formulas or applying them to unusual painting conditions. Eagle-Picher Lead Co.

16-27. *Property Protection with White Lead Paint (155)*, Lead Industries Association. (Reviewed in March.)

16-28. *Announcing Fenestra Building Panels (BP-1)*, Detroit Steel Products Co., Building Panels Division. (Reviewed in March.)

Partitions

16-32. *Movable Partitions for the Duration, Catalog 42-A*, 8-page catalog on prefabricated movable partitions, with information on special types for sound-absorbing, fire-, dust-, light-, and sound-proofing, and for stopping X-ray emanation. Details, photos, drawings. E. F. Hauserman Co.

Piping

16-34. *Orangeburg Fibre Pipe, Catalog 303*, 16-page booklet. Vacuum impregnated conduit: characteristics; various uses—for drainage requiring tight joints; house connections to sewers and concrete pipes; septic tank filter beds; irrigation and subsoil drainage; downspouts. Photos, comparison charts, detail drawings. Fibre Conduit Co.

16-35. *If It's Piping Contact Flori*, 64-page illustrated consumer booklet. Piping for high and low temperatures or pressures for conveyance of gas, air, steam, or liquids; architectural or structural grades of standard or lightweight pipe, mechanical and boiler tubing; pipe for fencing, poles, braces, fixtures and jigs, machinery equipment; pipe fittings, valves, flanges, special plate steel products. Prices, sizes. The Flori Pipe Co.

Plumbing and Plumbing Equipment

16-37. *Plumber's Handbook*, 74 pages, indexed, on a line of plumbing products from air tanks to water film boilers. Published to assist the plumber in specifying his requirements. Photos, diagrams, drawings, ratings, capacities, sizes, prices, etc. L. O. Koven & Bro., Inc.

Plywood

16-36. *Super-Harborite*, 4-page bulletin on weatherproof plywood panels composed of fir plywood core and phenol type resin-impregnated fiber faces. Assembly specifications, procedure, sizes, photos. Harbor Plywood Corporation.

Protective Coatings

16-29. *Amercoat No. 33 Plastic Coating*, illustrated consumer folder on properties, uses, and benefits of "Amercoat No. 33," a general-purpose, cold-applied, protective coating. Technical features, product advantages, suggestions for eliminating corrosion and contamination on equipment and structures of all kinds. American Pipe and Construction Co.

16-38. *Triple-A Naphthenate Preservatives (381)*, illustrated consumer folder (4x9). Information on a copper naphthenate preservative for wood and some textiles; four formulas and applications. Quigley Co., Inc.

Roofing

18-04. *Reference Manual for Architects and Engineers*, 64-page illustrated booklet of specifications and detailed drawings on: built-up roofing for flat and steep roof decks; roof flashing and drainage; waterproofing and dampproofing. Details arranged to show exactly the construction secured when the accompanying specifications are adhered to. The Barrett Division of Allied Chemical and Dye Corporation.

18-05. *Corrugated and Flat Transite (DS Series 300)*, 52-page illustrated booklet containing data on "Transite," a corrugated asbestos fiber-and-cement sheet for industrial roofing, siding, and partitioning. Photos of installations, dimensions, weights, erection instructions and construction details, sheet area table, specifications, application instructions; other products listed. Johns-Manville Corporation.

18-06. *Revere Copper for Roofing, Flashing, and Gutters*, 24-page illustrated booklet on advantages and uses of copper in roofing, flashing, and gutters; technical information; standard seam construction details; batten seam roofing details; wall finishes; flat seam roofing details. Suggested roofing specifications for commercial sheet copper work. Revere Copper and Brass, Inc.

Sound Conditioning

19-20. *The Quiet Hospital*, Celotex Corporation. (Reviewed in March.)

Tile

20-12. *Kalman Removable Steel Tile (Folder 284)*, 8 illustrated pages on tiles used as fillers or cores between ribs of reinforced-concrete-joist floor and roof construction. Light to handle, usable more than once. Two types: spreader tile; 20-in. and 30-in. nail-down tile. Framing details, diagrams. Kalman Steel Corporation, Subsidiary of Bethlehem Steel Corporation.

20-13. *Illustrated data sheet (11/12)* on sanitary metal tile with baked-on enamel finish. Wall and ceiling tile, flexible and rigid, in colors. Uses, sizes, application, short specification, typical installation. Sanimetal Tile Corporation.

Ventilating

22-04. *Ventilating and Exhaust Fans, A.I.A. File 30 d 1*, 16-page booklet. Exhaust fans—free-air installations or with ducts—for residential, commercial, and industrial use. Emerson Electric Manufacturing Co.

22-05. *"B" Series Attic Fans (Temporary Bulletin)*. Designed as guide for selection of attic fans for residential and other purposes where quiet operation and low horse-power consumption are important. Sizes, performance data, specifications, detail drawings. Torrington Manufacturing Co.

Walls and Wall Finishes

23-27. *Ideas: A Portfolio of Practical Suggestions for Modernizing Business Interiors*, Armstrong Cork Co. (See 6- under classification "Floors.")

23-28. *The Gold Bond "Floating Wall" Plastering System (Form 99T)*, 16-page illustrated booklet on gypsum lath; how an elastic "floating wall" may be free from rigid attachment to framing members and increases insurance against structural strains and vibrations; is more crack-resistant; provides fireproof protection for wood framing members; checks indoor and outdoor sound transmission. Detail drawings, standard specifications; questions and answers. National Gypsum Co.

Water Heaters

23-29. *Catalog 16, A.I.A. File No. 29D2*, 12-page illustrated booklet on water heaters; indirect, tankless, instantaneous, and others. Ratings, capacities, installation details and diagrams. General Fittings Co.

Windows

23-30. *Aluminum Windows for Moderately Priced Homes*, Aluminum Window Corporation. (Reviewed in March.)

23-32. *Biltwell Superior Unit Wood Window (4741)*, 4-page folder. Counter-balanced, weatherstripped window unit, with easily removable or installed sash. Sizes, drawings. Carr, Adams & Collier Co.

Pencil Points, 330 West 42nd St., New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.
We request students to send their inquiries directly to the manufacturers.

NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.

NAME POSITION

FIRM

MAILING ADDRESS ☐ HOME ☐ BUSINESS

CITY STATE

4/45

PLEASE PRINT

Reviews

Books

Periodicals

Bibliographies

THINKING MIGHT BE PROFITABLE

Postwar Goals and Economic Reconstruction; Postwar Economic Society. *Two volumes edited by Arnold J. Zurcher and Richmond Page. Institute of Postwar Reconstruction, New York University, 51 West 4 Street, New York, N. Y., 1944. 304 pp. and 306 pp. $3.50 each*

The ever stronger nexus between the planning profession and the social scientists is well illustrated by the two volumes which deal with post bellum problems. These symposia are the fruit of the series of conferences held by the Institute on Postwar Reconstruction at New York University. The books reviewed here cover the addresses delivered at the second and third series of the Institute, which is currently in its fourth session.

Although the lectures and their subsequent publication are intended very generally, urbanists and those in related fields will find many of them profitable. The articles on urban redevelopment contributed by Guy Greer, Mrs. Rosenman, and Ira Robbins rate mention largely for their educational value for the public at large. Other relevant sections are *War and Postwar Population Shifts in the United States, Postwar Overseas Transportation, The Promise of Technology,* and *Public Work and Our Postwar Economy.*

However, the best briefs for fundamental planning are found in two essays which seemingly are little related to planning *per se.* Alvin Hansen's *How Shall We Deal with the Public Debt?* develops a concept of "developmental fiscal policy" which merits thorough study. Hansen maintains that progressive fiscal policy is inseparable from a wise and increasing use of public expenditures to raise living standards. His public investments would include "urban redevelopment, terminal and transportation facilities, river valley development, irrigation projects, flood control, soil conservation, reforestration, rural electrification, slum clearance and low-cost housing." He urges such projects not only because they raise the productivity and standard of living of the areas in which they are undertaken, but also because they "open new outlets for private investment." It would be difficult to find a more hard-headed business justification for the TVA, urban redevelopment, and needed public works.

National Farmers' Union president James Patton in his article on *Some Problems in Postwar Agriculture* reveals the soul of a planner. High on his program for *agricultural prosperity* are "public works which serve people, such as TVA, the proposed St. Lawrence Waterway, the Missouri and Arkansas River Development, housing, hospitals, sanitation projects and rural centers. . . ." He feels also that projects such as these should be given first consideration as "contrasted to monumental but unserviceable public buildings. . . ."

This fundamental thinking is not revealed in all of the lectures. The public works discussion, for instance, though otherwise shrewd, fails to make the point that master planning must precede such public expenditures. The transportation article and a few of the others reveal a limited approach. By and large, despite ideological and professional variances, there is a surprising unity on the basic problem: the need for full employment and a fully utilized productive economy. *(A bibliography is appended to each functional section.)*

RITA DAVIDSON AND WILLIAM SMULL

(Continued on page 113)

FOR LONGER WEAR AND EASIER MAINTENANCE

architects specify this floor finish

ARCHITECTS know they've "licked" floor maintenance problems when they specify Seal-O-San. Comparisons prove that Seal-O-San penetrates *deeper* into the wood. Thus it seals a greater number of weak-walled cells—*reinforces* them to assure greater protection against traffic wear.

Also, the beautiful, armor-clad seal that guards the surface provides *lasting cleanliness* by preventing dirt or moisture from penetrating the wood. Stains are easily removed from the floor—*without scrubbing.*

And consider Seal-O-San economies. Quickly applied with a lambswool mop, Seal-O-San offers lower finishing costs . . . definite savings over costly hand-brushed finishes.

Investigate Penetrating Seal-O-San today. You'll find it the ideal finish for any heavy-duty floor

P-E-N-E-T-R-A-T-I-N-G

SEAL-O-SAN

PERFECT SEAL AND FINISH FOR WOOD FLOORS

ESPECIALLY MADE SEAL-O-SAN FOR GYM FLOORS

More than 5200 coaches have selected Gymnasium Seal-O-San for finishing gym floors. A combined seal and finish, 100% non-slippery, it has no equal for withstanding the punishing effects of basketball or other gym activities.

Both types of Seal-O-San approved by Maple Flooring Mfrs. Ass'n.

THE HUNTINGTON LABORATORIES INC

DENVER • HUNTINGTON, INDIANA • TORONTO

Reviews

(Continued from page 110)

PLANNING FOR THE WORLD

Enough and to Spare. *By Kirtley F. Mather. Harper and Brothers, 49 East 33 Street, New York, N. Y., 1944. 186 pp. $2.00*

Mather asserts, after a geologist's due consideration, that this planet can support its inhabitants in peace for the next thousand years or so. If shortages appear, they will have resulted from human, not natural, activity and it will be largely the planners' fault!

It has been recognized that intelligent foresight can raise living standards even in relatively barren areas. Better endowed communities, through planning, can achieve a kind of super-health above the mere sustenance level. It behooves twentieth century technicians, therefore, to live up to a major responsibility for they are the inheritors of an unbelievably fine physical plant.

Mather describes the terrestrial factory in terms of its renewable resources (the land, and water power) which he considers as annual income. This plant is equipped as well with a storehouse of non-renewable materials (such as minerals) which are called accumulated capital. It is the "problem of dealing with the limited capital represented by these non-renewable resources in nature's storehouse which must be solved if men are to live in peace and security through the years to come."

A survey of the world's supplies of petroleum, coal, and the various metals —the non-renewables—indicates there is an abundance (of the commodity as such or of substitute minerals) for the next millenium. Two factors discernible in recent years buttress this assertion. Population has been leveling off and probably will not be a cause of serious pressure upon resources for some time to come. There is also a strong tendency to place increasing reliance on renewable resources; illustrated by the growth of the plastics industry which has a considerable agricultural base, and by the shift to water power sources for electrical energy. Thus, the period of dissipation of the accumulated and non-replaceable commodities may be on the wane; actually it existed for a relatively brief phase of history, roughly paralleling the large-scale use of coal and the Industrial Revolution.

Inasmuch as land and water power are inexhaustible if utilized properly and we still have a ten-centuries-deadline on the minerals, Mather feels there is time aplenty to learn how to live within our worldly income. (His concept of long-range planning, with conscientious respect for our distant successors of 7000 A.D. or so, makes usual capital-budget

(Continued on page 114)

HI-DENSITY

NOT A PHRASE BUT A *Fact*

...and a fact that's important to YOU, who depend upon the pencil tracings for blue-prints that do justice to your skill. The finer grain in HI-DENSITY Microtomic Leads results in sharper, clearer lines with *less* pressure... and easier erasures. Use Microtomic "Van Dyke" and be that much more certain of foolproof reproduction.

MICROTOMIC VAN DYKE DRAWING PENCILS

The EBERHARD FABER Drawing Pencil in 18 degrees, 7B to 9H plus 6 degrees with special Chisel Point Leads.

Free Sample

EBERHARD FABER PENCIL CO., Dept. P.P.-4
37 Greenpoint Ave., Brooklyn 22, N.Y.

Please send me a____degree MICROTOMIC "VAN DYKE" with HI-DENSITY Lead.

NAME_____
POSITION_____
BUSINESS ADDRESS_____
CITY_____ STATE_____

The better way to mount photos, drawings and other valuable papers . . .

Try SUPERGRIP 50, the synthetic rubber cement with a superior grip that remains unchanged. The SUPERGRIP bond defies oxidation not only at normal temperatures but even when tested in an atmosphere of almost pure oxygen. This changeless adhesion is without injury or change to photo or to mount. SUPERGRIP'S thin, clear film does not stain or wrinkle, and any excess can easily be removed by rubbing with the finger, as with rubber cement.

It grips better . . .

SUPERGRIP not only sticks paper to paper; it also sticks paper to wood, to metal, to glass and to plastics. Artists, advertising men, architects, engineers, photographers, teachers—anyone who mounts—need "mourn no more" for pre-war rubber cement because this recently developed but fully tested synthetic rubber cement has many advantages all its own.

SUPERGRIP 50 is the civilian brother of scores of highly specialized wartime cements developed in our laboratories which are one of principle sources of special industrial adhesives. You can buy and use SUPERGRIP 50 in full confidence of satisfactory performance of its specified uses. SUPERGRIP 50 is available in photo supply and stationery stores, in 4 oz. bottle (with brush) and in pint, quart and gallon containers.

Look for this trademark on label—

Supergrip CEMENT 50

BB CHEMICAL COMPANY
784 MEMORIAL DRIVE · CAMBRIDGE 39 · MASS.

Reviews

(Continued from page 113)

planning seem like a grain in the sands of time.) He cautions that fullest use of the resources can come only if the world is recognized as the community. He refuses to countenance local, regional, or national barriers for planning and believes that even the aims of continental self-sufficiency are too narrow. There is "enough and to spare" but only if the nations of the world cooperate and interchange in a coordinated and pre-arranged manner.

A brief description of the evolution of planning is included. The author considers planning processes one of the great civilizing movements. He recognizes three decisive stages of human thought and conduct: chance discovery where the thought process consisted of remembering the solution discovered by trial and error; the period of invention or the working toward a definite goal; and now the age of planning with its awareness of the value of purposeful regulation of relationships. Mather believes that planning experts today are in a position similar to that of inventors in the nineteenth century. ". . . At least a hundred years of trial and error were required to give aspiring inventors the experience and training necessary to make them really efficient in their art. It will probably require a shorter period for the pioneers of planning to reach a level of proficiency in their new calling comparable to that now displayed by twentieth century inventors in their well-established profession. In the meantime, we should be no more discouraged by their fumbling and blundering than our great-grandparents were by the failure of their inventors to provide radios and electron microscopes a century ago."

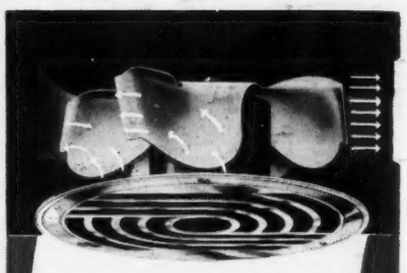
RITA DAVIDSON AND WILLIAM SMULL

LOOKING BACKWARD

Georgetown Houses of the Federal Period, Washington, D. C., 1780-1830. *By Deering Davis, A.I.D., Stephen P. Dorsey, and Ralph Cole Hall. Architectural Book Publishing Co., Inc., 112 West 46 Street, New York 19, N. Y., 1944. 130 pp., illustrated. $5.00*

Presented with a foreword by Nancy McClelland, A.I.D., this book contains photographs and description of 22 ancient houses of Georgetown ("town within a city"), which is described as a living record of the Republic's architecture—Federal, Classic Revival, Victorian, and Modern. Historical data on the houses is brief and readable, and the illustrations well chosen. E. L.

(Continued on page 116)



V-DAY means *B-DAY for our Clients

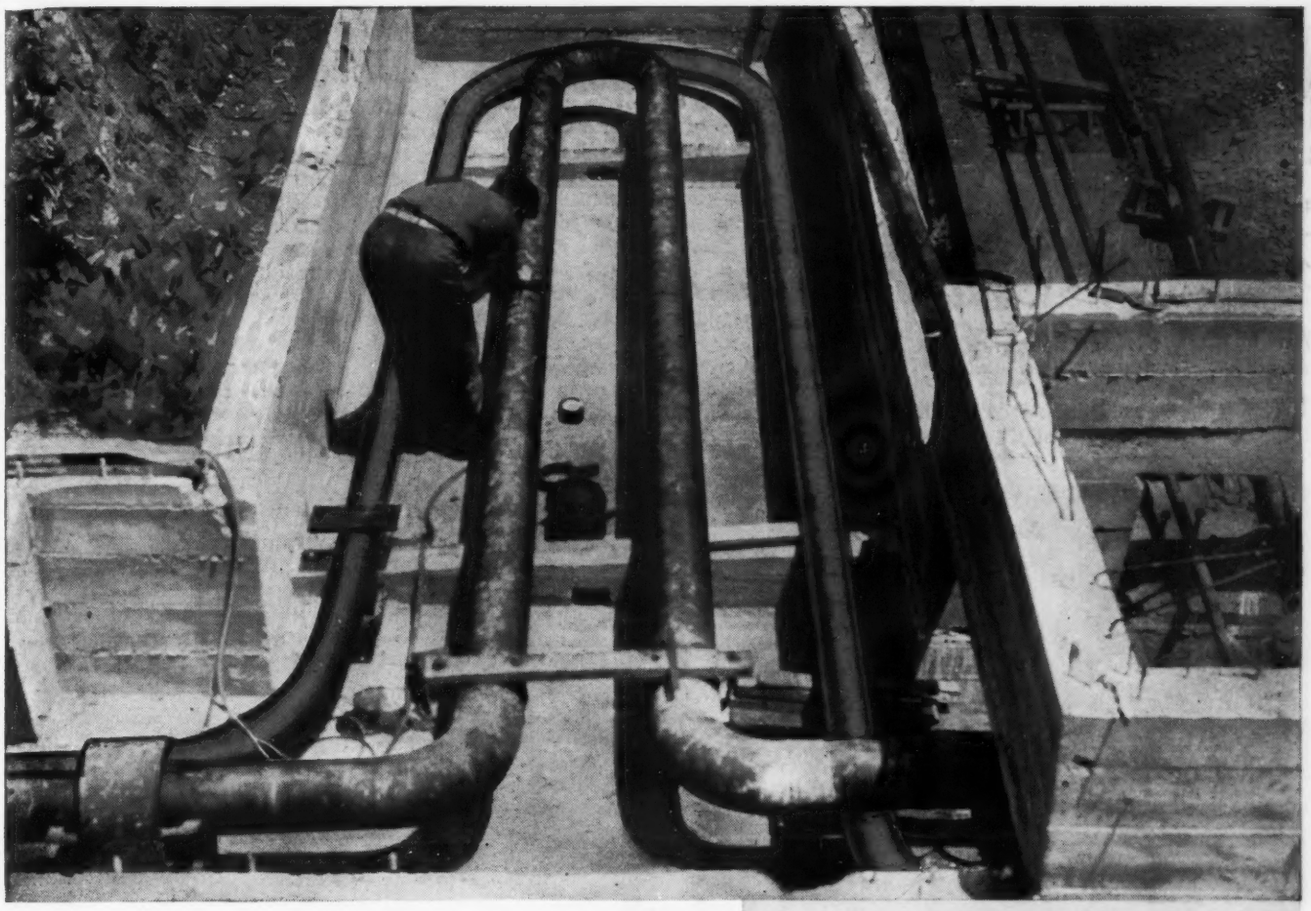
**** BUILDING DAY will see an unprecedented demand for "Spot" ventilation. Satisfy it with your specifications for***

Blo-Fan

BLO-FANS offer the solution for "spot" ventilation in both air conditioned and forced draft heated houses. Twice as powerful as an ordinary fan of equal size, the Blo-Fan combines the volume of a breeze fan with the pressure of a blower. Ceiling installed, it catches most of the unwanted air with less draft and cross current interference. In bathrooms, gamerooms and kitchens the efficient ventilation of Blo-Fans is needed. You can provide for long life "spot" ventilation by specifying Blo-Fans on your B-Day plans, whether for new or modernized jobs.

SEE SWEET'S FOR 1945

PRYNE & CO., INC.
1245 E. 33rd St. · LOS ANGELES, 54
BRANCHES (TO BE RE-ESTABLISHED AFTER THE WAR)
SAN FRANCISCO · SEATTLE · CHICAGO · NEW YORK



The Trend Toward Permanence

EMPHASIZES THE ECONOMY OF LONG-LIFE MATERIALS

Illustration shows expansion joint for heating lines laid in 8,800 feet of concrete conduit at the University of Connecticut, Storrs, Conn. Condensate return lines, subject to the corrosive action of the boiler water, are of Anaconda Red Brass Pipe welded with Tobin Bronze*. Sixty thousand pounds of Red Brass Pipe, from 1½" to 6" S.P.S., were furnished by Crane Co., New Haven, who made the bends for the expansion loops.

Consulting architects and engineers to the State of Connecticut, Westcott and Mapes, Inc., New Haven. Contractor, C. N. Flagg & Co., Inc., Meriden. All welded joints were supervised and approved by Hartford Steam Boiler Inspection and Insurance Company. *Reg. U. S. Pat. Off.

MORE AND MORE, civic and industrial planning inclines toward the long range viewpoint. Permanent construction—using quality materials—gains in favor over the practice of building for immediate needs only. This type of planning emphasizes the economy of using long-life Anaconda Copper Tubes and Red Brass Pipe to resist corrosive conditions in air conditioning, heating, plumbing and industrial piping installations.

Experience over the past few decades stresses the dependability and durability of copper and brass in these applications. The extension of chemical treatment of domestic waters further increases the need for these non-rust materials.

Anaconda Copper Tubes and Red Brass Pipe are furnished in a standard range of sizes and wall thicknesses and allow the architect or engineer a choice of threaded fittings, solder-type connections or welded assemblies. 4571

ANACONDA
from mine to consumer

Buy War Bonds
Buy more
... HOLD ALL

Anaconda Copper & Brass

THE AMERICAN BRASS COMPANY—General Offices: Waterbury 88, Connecticut

Subsidiary of Anaconda Copper Mining Company—In Canada: Anaconda American Brass Ltd., *New Toronto, Ont.*

Reviews

(Continued from page 114)

This Is Charleston. *A Survey of the Architectural Heritage of a Unique American City Undertaken by the Charleston Civic Services Committee. Text by Samuel Gaillard Stoney. Carolina Art Association, Charleston, S. C., 1944. 141 pp., illustrations. $2.00*

A group of Charlestonians determined to study the necessities of Charleston's future, "the better to reconcile them with the values of its past," formed a committee and went to work by first taking stock of the city's architecture (with the help of Carnegie Corporation and Rockefeller Foundation grants). Their published report is primarily a catalog of the buildings that have helped to make Charleston a famous American city. A brief history of the city accompanies the collection of photographs, grouped as "Pre-Revolutionary," "Post-Revolutionary," "Ante Bellum," and "Modern." An analysis of the survey, information on city boroughs, fire areas, zoning ordinance also are included.

zoning ordinance also are included.

E. L.

READY!

You always find Von Duprin exit devices ready for action.

Day after day they do their work surpassingly well, no matter whether that means daily operation by a thousand children rushing home from school, or emergency action when fire or panic strikes . . . and quick exit becomes a matter of life or death.

Von Duprins are always ready because they are made to stand up under the wear and tear of daily operation, to take the terrific strain of emergency demands, to deliver safe, sure, instantaneous exit under every possible condition.

They are built with painstaking care . . . to do the job for which you buy them.

Garden City, AN OUTSTANDING ACHIEVEMENT IN GRACIOUS LIVING. *Garden City, Long Island. 1944.*

This is the story of a village founded by a real estate developer, whose street and park layouts were backed up by strict zoning regulation and deed restrictions. It is stated that these restrictions "effectively protect home owners against discordant architectural ideas." Architectural "harmony," however, is achieved by use of "styles" ranging through French Provincial, English Tudor, Georgian, mongrel Colonial, Gothic and Victorian conglomerate. There is no single house here which does not consciously imitate some long-defunct period of architectural history.

Evidently no further planning is wanted, since the imposed 19th century plan has so carefully eliminated progressive ideas in keeping with 20th century living. Such static complacency bears no kinship to the civic pride which should actuate planned development of our cities, and obsolescence procedures in keeping with a changing world.

M. G. K.

THE CITIZENS' PART

Citizens Look at Public Housing. *Pittsburgh Housing Association, 519 Smithfield Street, Pittsburgh, Pa. $1.00*

Citizens who serve on the board of the Pittsburgh Housing Association have engaged in a study of six housing projects under the Authority and have presented their findings in this symposium. The topics include: administrative structure, personnel policy, public relations and publicity; finance and accounting, legal powers and limitations; planning, design, and development; tenant selection policies and procedures; the graded rent system, racial policy; maintenance; community activities, relations with educational authorities, relations with social agencies, community gains and losses. The appendix is one of the most important portions of this booklet, as it gives statistics on occupancy turnover. Through such statistics, so well integrated, many of the most serious problems in public housing are brought to light.

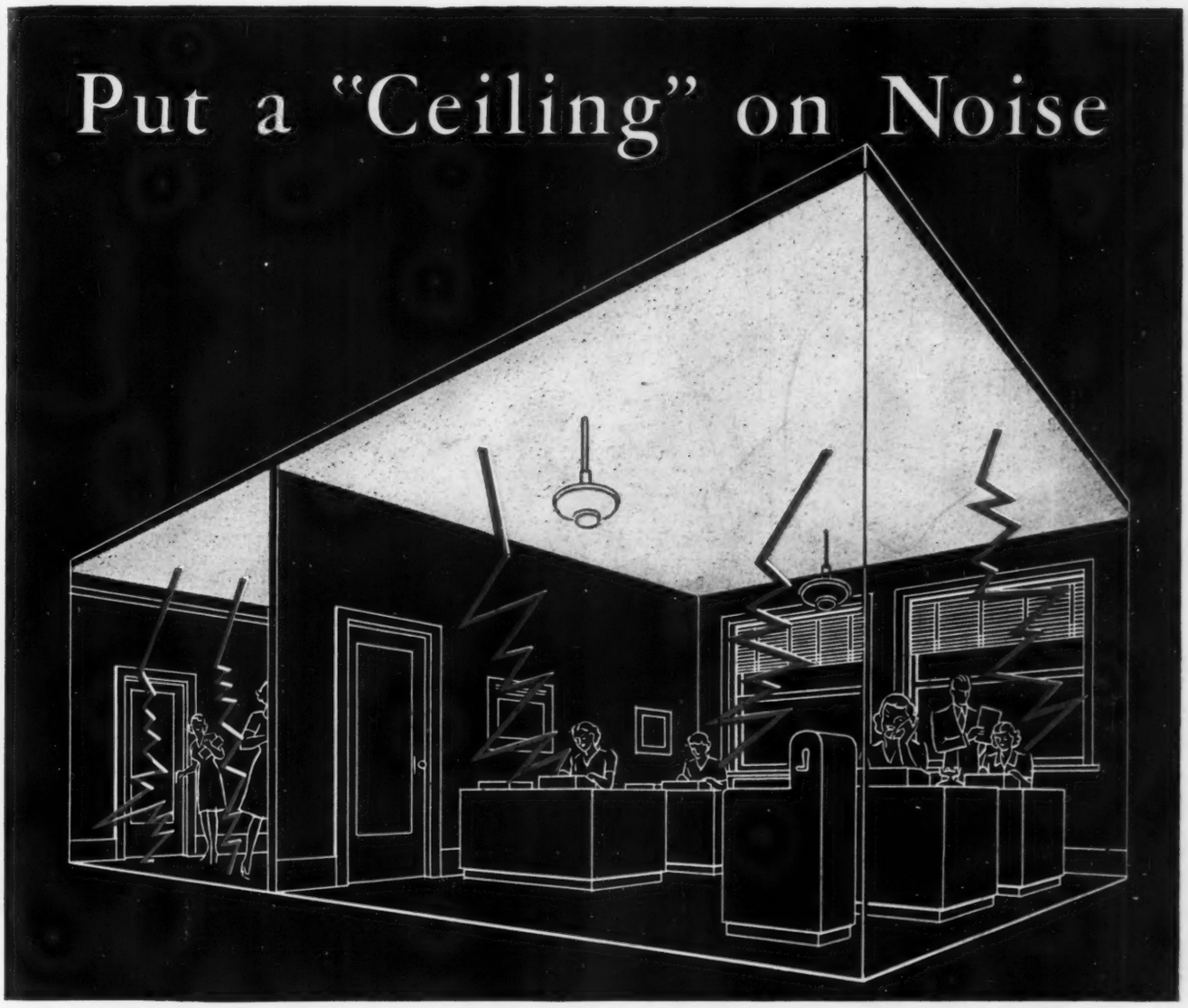
A study of this type, undertaken by men who are seriously interested in public housing is of far more aid toward the ultimate goals of housing than a group of technical studies of finance, because it takes into account the human factor involved. Commendation is due this group for such a report.

Several standard reference works were consulted by the editors and it seems probable that a considerable amount of the material of interest to planners was taken from the *Glossary of Housing* compiled by the Central Housing Committee on Research, Design and Construction, of the U. S. Department of Commerce and the National Bureau of Standards.

This dictionary is of value to those in planning, housing, and the related pro-

(Continued on page 118)

Put a "Ceiling" on Noise



with SABINITE "M"

The architect who has his "ear to the ground" and his eyes on the future knows that modern buildings should combine sound correction, beauty and fire protection as a part of the original conception. By the same token, old buildings should be "sound-conditioned" to keep up with present-day demands . . . and all this can be done easily and quickly with one material —Sabinite "M"—an acoustical plaster finish.

ACOUSTICAL PLASTER FINISH

Why? Because Sabinite "M" has upset old ideas and set up new standards. It goes on like any other plaster finish . . . lends itself to any architectural design . . . blends with any decorative scheme . . . requires no special planning, construction or application. Any skilled plasterer can put it on.

Today, Sabinite "M" offers a practical, low cost solution for modern noise quieting. The smooth-textured Sabinite "M" finish is high in light reflectivity. And important, too, is the fact that it may be had in prepared colors or decorated to suit.

Sabinite is a trademark owned by the United States Gypsum Company

USG

United States Gypsum

For Building • For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint

15 cents

"DEMAND THE BEST!"

J. S. STAEDTLER, INC.
53-55 WORTH STREET
NEW YORK, N.Y.

Reviews

(Continued from page 116)

fessions. It cannot be criticized for its restricted attention to these subjects since it was intended as a sociological document. The fact that almost 6 percent of its definitions are of use to us indicates the link between the fields of sociology and planning. It indicates even more the need for an over-all reference work on planning.

Report to the Mayor. *Chicago Housing Authority, 343 South Dearborn Street, Chicago 4, Ill.*

A report of this type serves to give a clear picture of the proceedings of a housing authority. Statistics are given in direct relation to the laws which govern housing standards.

One interesting aspect of this report is that the war has brought pressure upon certain policies of low-cost housing—notably regarding the removal of tenants receiving more than the allowed income. The War Manpower Commission found this policy undesirable because it operated as a factor limiting overtime and part time work (since the housing shortage was so critical that families would rather earn less than risk being forced to move). Another war-imposed expedient was the lifting of the rigid rule requiring that a corresponding area of sub-standard dwellings must be demolished when a low-rent housing project is built. Because of the housing shortage, this demolition has been delayed until after the war.

The need for war workers' houses was most acute in the Negro section of the city where Altgeld Gardens, a nine-million-dollar, Federally financed project, has been built. A project designed to be sold to private ownership after the housing emergency, it consists of 250 single units supposedly models for home building as differentiated from slum clearance.

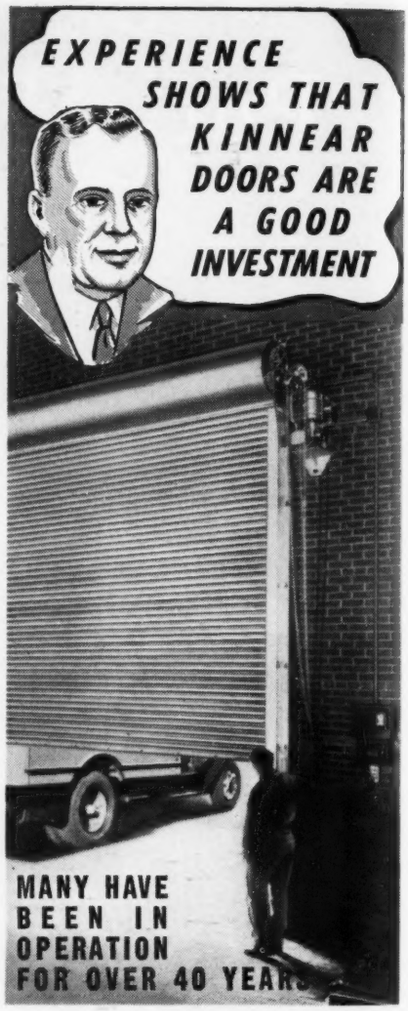
RITA DAVIDSON AND WILLIAM SMULL

TEXT ON AIR REJUVENATION

Air Conservation Engineering, *edited by G. S. Dauphinee, F. H. Munkelt, H. Sleik. W. B. Connor Engineering Corp., 114 E. 32 St., New York, N. Y. 111 pp., illustrated with diagrams, drawings, charts, tables. Free to practicing registered architects; $2.00 to others.*

This textbook on air conservation, compiled from the results of the publishers' experience, is an admirable venture. The Connor Corp. manufactures, installs, and services a type of equipment which is not yet widely enough known, for the proper use of which certain information is necessary and design proc-

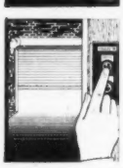
(Continued on page 120)



When you specify Kinnear Motor Operated Roiling Doors you can be certain you are providing doors that save time and effort every time they are opened or closed. A touch on the control button puts the sturdy motor operator into action instantly, coiling the rugged, steel-slat curtain up out of the way.

MOTOR OPERATOR
an integral unit, features a specially designed torque output motor for long life and durability.

FLEXIBLE STEEL SLATS
of the curtain are strong and rugged, and are individually engineered for each job.

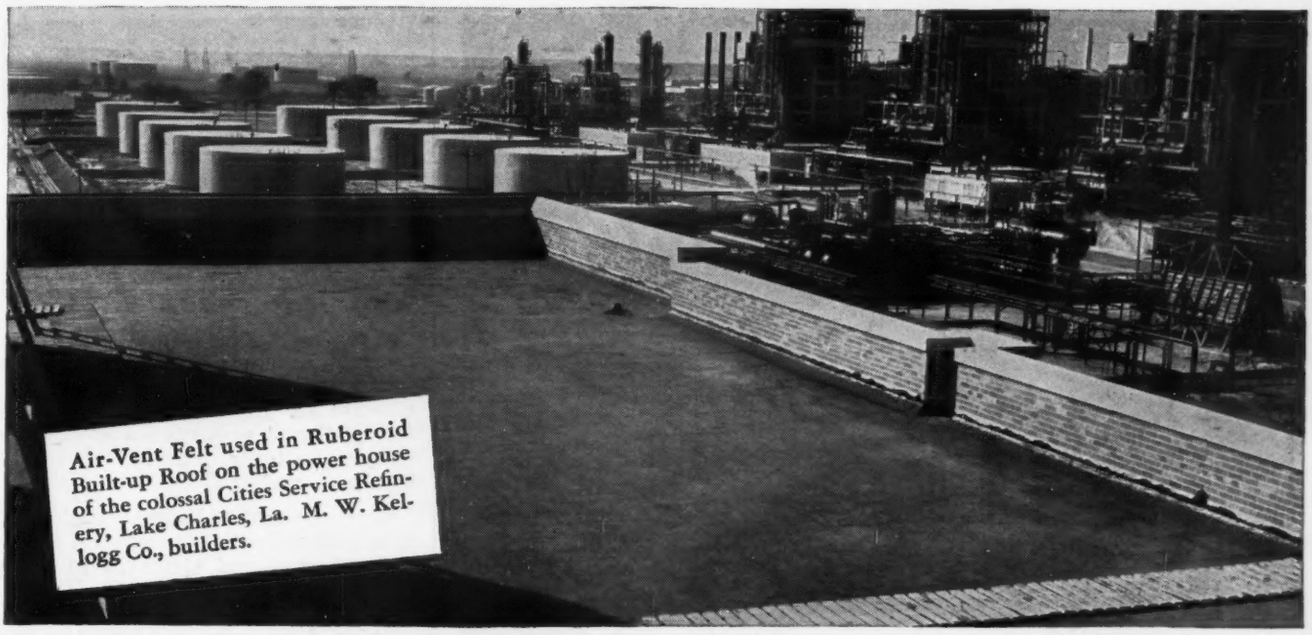


REMOTE CONTROL
switches can be installed at convenient points to save additional steps and time.

Write for latest bulletin! The Kinnear Mfg. Company, 1900-20 Fields Ave., Columbus 16, Ohio.

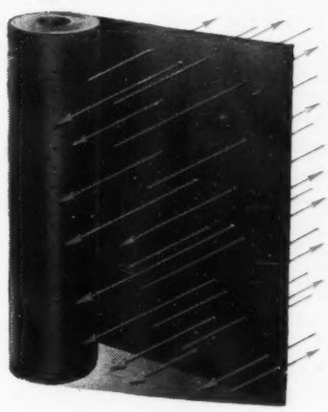
SAVING WAYS IN DOORWAYS

KINNEAR ROLLING DOORS



Air-Vent Felt used in Ruberoid Built-up Roof on the power house of the colossal Cities Service Refinery, Lake Charles, La. M. W. Kellogg Co., builders.

Where NOTHING can be left to chance



Pin-point perforations form "Inlet" and "Outlet" valves . . . vapor escapes through perforations and helps prevent roofs from blistering and buckling.

• Precision control is an essential factor in this tremendous new plant, whose production of high octane gasoline and butadiene rubber is a vital part of our war effort. Designed for the utmost efficiency in the production of these wartime materials, it was also planned to be equally efficient in peace times. Naturally the materials for its construction were picked with the greatest care . . . and Ruberoid Built-up Roofing with Air-Vent Felt was specified.

Air-Vent prevents roof troubles because it helps eliminate the blisters or air-pockets that frequently develop on smooth-surfaced built-up roofs. When Air-Vent is laid, air or vapor is forced out through tiny "Outlet" valves. Asphalt seeps in through the "Inlet" valves, giving a better bond. Result: freedom from blister problems—no air bubbles to expand and lift the felt. Air-Vent, with its two-way perforations, is an exclusive patented* Ruberoid product. The Air-Vent feature is available in both asbestos and asphalt type felts. Write today for samples.

*PAT. NO. 2096784

The RUBEROID Co., *Executive Offices:* 500 Fifth Ave., New York 18, N. Y.
ASPHALT AND ASBESTOS BUILDING MATERIALS...THERMAL INSULATIONS

RUBEROID

PERFORATED

AIR-VENT FELT

No. 370 TRI-POST DESIGNERS PAD

75 sheets of Tracing Paper Size 8½ x 11

6 Scale Combinations: inch, tenth, eighth, quarter, half—and isometric with eighth inch scale.

List Price . . . $1.50

POST

CHICAGO

The Frederick Post Company

P. O. BOX 803 CHICAGO 90 KEYSTONE 7000

Reviews

(Continued from page 118)

esses must be explained; equipment which, it may logically be argued, can do much to forward civilization by improving man's artificial environment.

The company advertises, of course; but this text, calm, never extravagant, eminently useful, should be by far its most effective ad. However, our enthusiasm for intelligent presentation of product information leads us afield; this should be a book review.

"Air Conservation Engineering" deals primarily with the rejuvenation of recovered, or re-used, air in a ventilating or air conditioning system. The Connor product employs activated carbon, like that used in gas masks, to remove from vitiated air the gaseous impurities which it has absorbed. The principle has residential, commercial, and industrial applications; it has already been applied to the problem of suppressing odors from industrial processes which might otherwise contribute to blight in the surrounding community. In another installation example, contaminated outdoor air in an industrial locality seriously affected the quality of bakery products, and the air had to be purified before it entered the bakery.

While the textbook contains little data that is intrinsically new, it orients all available information to the new purpose in an extensive reference data section, in which tables, charts, and explanations of their use, from such diverse sources as ASHVE, the U. S. and Canadian weather bureaus, and Dr. Willis Carrier, are correlated and duly credited. This section is preceded by a brief, lucid explanation of the economics of air conservation and chapters on procedure, results attainable, functioning and selection of equipment, and a modest one-page description of Connor Corp. services. The book closes with a matter-of-fact catalog, smartly but not blatantly presented; and an impressive partial list of installations. If there were more product promotion like it, building design would be a simpler process, and both architect and public would benefit from the improved architecture which could not help but result.

F. G. L.

Engineering Contracts and Specifications. *By Robert W. Abbett. John Wiley & Sons, Inc., 440 4th Ave., New York 16, N. Y. 188 pp. $2.25*

A non-technical guide for practicing engineers, architect, and contractors, this book is designed to clarify and coordinate the business, professional, and legal relationships involved in the accomplishment of construction. The subjects include: legal considerations; types of construction contracts (com-

(Continued on page 122)

SPECIFICATIONS

FOR THE PERFECT DRAWING PENCIL

1. POINT MUST BE SUPER-STRONG

   Lead shall be inseparably welded to wood for extra point strength.

2. LEAD MUST BE EXTRA-SMOOTH

   The lubricating waxes shall be permanently sealed in the lead.

3. GRADING MUST BE ABSOLUTE

   Each degree shall be made from its own unvarying formula.

4. LINES MUST REPRODUCE PERFECTLY

   Graphites shall be selected and refined for maximum opacity.

that's **TURQUOISE** *to a "T"!*

EAGLE *"Chemi-Sealed"* (SUPER BONDED)

TURQUOISE

DRAWING PENCILS AND LEADS

EAGLE PENCIL COMPANY, 703 E. 13th ST., NEW YORK 9, N.Y.

EAGLE PENCIL COMPANY OF CANADA, LTD., TORONTO

Let Ernest Eagle send you one, free!

Write for a test sample of TURQUOISE in any grade you want, naming this publication and your dealer.

*Reg. U.S. Pat. Off.

DON'T BE COY

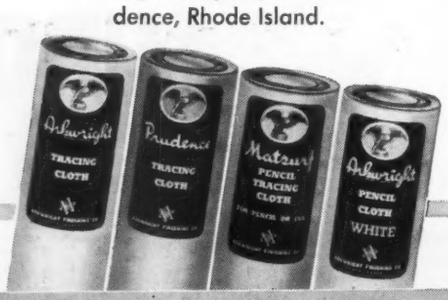
about asking your boss to make the switch from tracing papers to Arkwright Tracing Cloths!

EVEN A BOY

can see they're better for draftsmen. Better in every way—even in cost, in the long run!

WHY NOT EMPLOY

the next two minutes most profitably by writing for free samples? We'll send them gladly. Write, Arkwright Finishing Company, Providence, Rhode Island.



Sold by leading drawing material dealers everywhere

Arkwright

TRACING CLOTHS

AMERICA'S STANDARD FOR OVER 20 YEARS

Reviews

(Continued from page 120)

petitive-bid, lump-sum, unit-price, cost-plus-a-fixed fee, management, etc.); bidding procedure; surety bonds, prequalification, arbitration, claim settlements; contracts for engineering and architectural services; specification writing. E.L.

Periodicals

Reviewed by Margaret Greenough King

ARCHITECT AND ENGINEER
68 Post St., San Francisco, Calif.

January 1945

In Mark Daniels' column, "Running Fire," he discusses the efforts being made to unionize architects and engineers. He sees an incompatibility between union-type regimentation and professional practices and the arts, assuming that the "aims" of the unions are not in keeping with professional standards. Several well known architects have been working toward a stronger A.I.A., in order to accomplish a worth-while unification of the profession.

As there is a somewhat grandiose development under way for a Civic Center for Oakland, Calif., E. Geoffrey Bangs, A.I.A., presents a plan to supplant an earlier one that would make of the center a "glorified thoroughfare."

"A California Architect in Mexico" is William A. Newman, who found some enviable modern apartments in Mexico City, by Mario Pina. Newman promised to outline in a later issue the opportunities for architects and engineers in Mexico.

INTERIORS
11 East 44th St., New York, N. Y.

December 1944

The firm of Ketchum, Giná, & Sharp, experts in the field of store design, "give away sterling ideas" in the form of a dramatic jewelry and silverware store for postwar building. The impressive offices of the industrial design firm of Van Doren, Nowland, & Schladermundt also are pictured here.

Paul Bry has achieved notice as an authority on the design of small specialty shops. An illustrated article on his work suggests that the specialty shop must be highly individual in design, to meet chain store competition.

The work of Russell and Mary Wright is reviewed, and the "Interiors' Dictionary of Weights and Measures" is offered. There is also a short article by Jan Reiner on "Contemporary Interior Design," and the regular feature by J.

(Continued on page 124)

SYLVANIA NEWS
ARCHITECTURAL EDITION

APRIL — *Published in the Interests of Better Sight and Sound* — 1945

Survey Reveals Strong Trend to Fluorescent Lighting in the Home

Owners Show Particular Interest in Kitchen, Living Room Installations

Preliminary reports of the impartial survey conducted by a leading market research organization—at the request of Sylvania Electric's Sales Research Department—indicate that the postwar era is likely to see a considerable expansion in residential use of fluorescent lighting.

To determine the public's interest in this type of illumination, more than 3,000 personal interviews were conducted. Of those interviewed, only about 10% now have fluorescent lighting, but almost half of these plan further installations after the war. Of the homes now without fluorescent lighting, 16% plan to install it.

As a guide to architects in formulating postwar plans for home fluorescent lighting, the survey also covered public preference by room. Among those not having fluorescent, but planning to install it, the kitchen is the most popular room by a wide margin. (The chart below shows the relative percentages in this group.) Living room, bathroom, bedroom, dining room and basement follow in order.

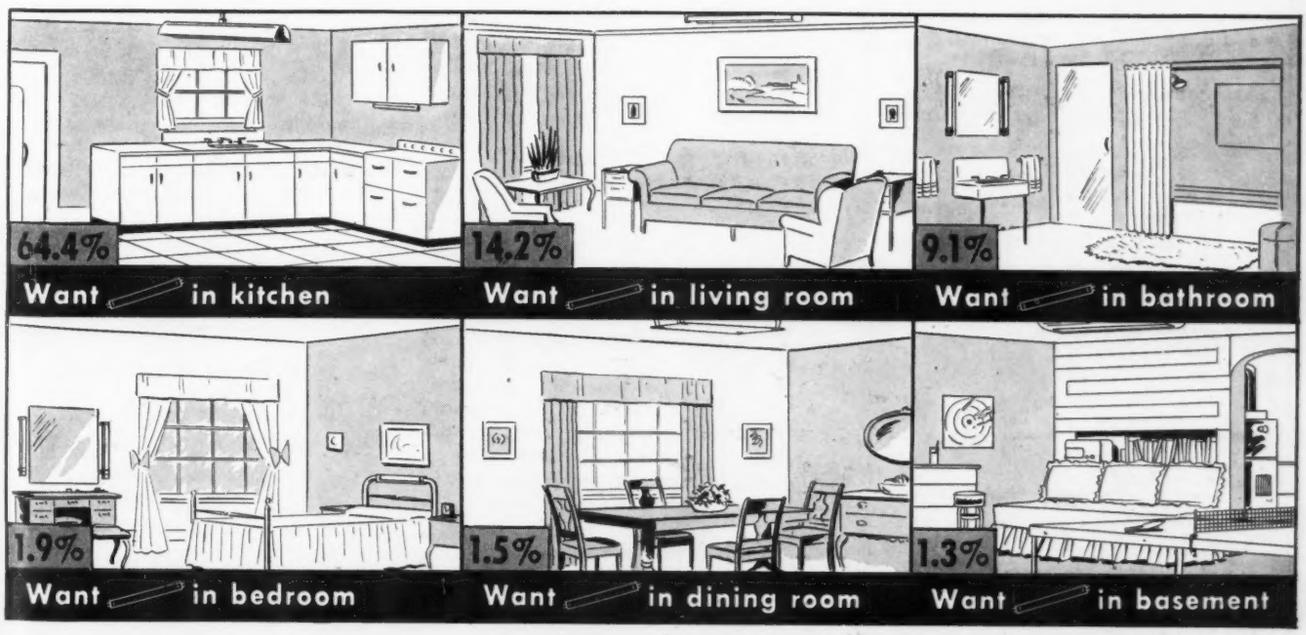
Among those now having fluorescent and planning additional installations, the kitchen also ranked first, with bathroom second and living room third. The order in the rest of the list was the same.

SYLVESTER SURVEY

"You plan to have fluorescent lighting in both the kitchen and bathroom. Now, how about the basement?"

DID YOU KNOW...

That 79% of the people having fluorescent lighting in their homes expressed themselves as *entirely* satisfied with it?



SYLVANIA ELECTRIC

SYLVANIA ELECTRIC PRODUCTS INC., Salem, Massachusetts

MAKERS OF FLUORESCENT LAMPS, FIXTURES, ACCESSORIES; INCANDESCENT LAMPS; RADIO TUBES; CATHODE RAY TUBES; ELECTRONIC DEVICES

INDUSTRY'S DOORS

Doors in modern industrial buildings are usually specialized installations—to accomplish more than the mere closure of passage openings? Today, doors must protect against fire; insulate against fatigue-producing noises; confine noxious operational vapors; safeguard elevator entrances; add distinction and beauty to industrial structures.

Architects and engineers for modern industry have found in the specialized

FIRECRAFT DOORS

completely satisfactory solutions of all the troublesome door closure problems.

FIRECRAFT DOORS—both standard and special designs—have been installed by the thousands to meet the most exacting and extreme needs in the control of

Excessive Sound
Noxious Vapors
High Air Pressures
X-Ray Emanations

as well as providing protection against fire, explosion, etc.

Specified by leading architects and engineers and engineered by Firecraft in cooperation with them, these doors have and are performing their "war tasks" most efficiently.

Firecraft invites you to lay before its door specialists any industrial door problem that you may have.

Firecraft Door Division
FIRECRAFT CORPORATION
3323 S. Wallace St., Chicago 16, Ill.

Reviews

(Continued from page 122)

Gordon Lippincott is concerned with "The Coming Battle of Materials—Magnesium."

MAGAZINE OF ART
22 East 60th St., New York, N. Y.

October 1944

Though this is by now an old issue, it comes under the heading of "better late than never" especially in connection with the Giedion article on "The Need for a New Monumentality." Another article of special interest to architects is that by George Howe, "Monuments, Memorials, and Modern Design"—"an exchange of letters." Since many contemporary architects have criticized the "ancient copyist" monumental building, Howe undertakes to point out clearly the few instances in which a monumental building is allowable. He makes a startling comparison between the "Federal Front" school (of stylized classical columns) and the German-Italian-Spanish Fascist decreed architecture. Recommended reading on both sides of the architectural fence!

December 1944

William Wilson Wurster's "San Francisco Bay Portfolio" is an attempt to "capture the essence of the buildings in an area," in an exceedingly limited number of photographs. The author concludes that a "distinguished spot" in San Francisco is "primarily a matter of view and climate," and "small matter in what you live, of great importance what you look at."

THE ARCHITECTS' JOURNAL
Forty-five The Avenue, Cheam, Surrey, England

January 11, 1945

The report on "The Hub of the House," by the Association for Planning and Regional Construction, includes an earlier study of kitchen requirements and the latest work on hygiene in the home by this group. To us it may seem that the principles set forth are the minimum requirements for hygienic living. Though the American public has been slow to adopt many modern improvements in building, we have long ago recognized valid modern standards of plumbing, general kitchen arrangement, and bathroom design. This may be seen even in advertisements for sale or rent of any archaic traditional house, when "modern bath and kitchen" are cited.

January 18, 1945

The "Diary for 1944" with an able introduction by Sir Charles Reilly takes this entire issue. It is difficult to review, being in itself a review of the architectural and planning events of 1944. Astragal, the Journal's wily commentator, has presented the diary in an extremely readable form. The review is recommended as a library acquisition. Would that such a clear picture could be painted of our own past year.

The page devoted to "Personalities of 1944" contains among other names those of William Wilson Wurster, Henry Kaiser, and Robert Moses ("in spite of his attack on long-haired planners").

There is a separate review of "Developments in Post-War Housing in 1944" by Richard Sheppard, also worth-while reading. And the "Information Center Index for 1944" offers a valuable compilation of reference material for that year.

THE ARCHITECT AND BUILDING NEWS
Rolls House, 2 Breams Buildings
London, England

January 12, 1945

Sir Giles Scott, the "leading Gothic architect of the day," has been engaged to rebuild the House of Commons. And according to an article by Capt. H. S. Goodhart-Rendel, his plans include among other exact restorations that of the old ceiling treatment, long acknowledged to be very bad acoustically.

There is an amusing touch in the short note on the "possibility of a competition" for a building to replace the Crystal Palace, when the writer suggests that "the new building should not embody too much glass" because "artistes . . . used to have to wear their greatcoats at practically any season of the year."

"London Street Architecture, 1922-1937, A Panorama of the R.I.B.A. Bronze Medal Buildings" clearly illustrates the trend of design in Britain—and it is an admirable trend. The first premiated design to show some modern construction features was the 1928 winner, the Hall of the Royal Horticultural Society, Westminster. In 1929 and 1930 more retrospective designs were chosen, but from 1934 to 1937 the buildings showed the development of an honestly contemporary effort.

JOURNAL, ROYAL ARCHITECTURAL INSTITUTE OF CANADA
57 Queen St., Toronto, Canada

August 1944

Editorially, this issue pleads for government regulation of summer resorts—labeling most of them unsanitary slums.

The remainder of the issue concerns hospitals. Articles cover: "Sanitoria, Their Buildings and Equipment;" "The Planning of Nurses Homes;" "The Small General Hospital;" "Municipal District Hospital;" "Hospital Kitchens." These articles are, in the main, unusually worth while and the text is illustrated by many photographs and plans of Canadian hospitals. Although these may be esthetically questionable, they provide a good cross-section of hospital architecture as it exists the world over.